SEPTEMBER 1953

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FIREMEN

FIFTY-EIGHTH YEAR · NATIONAL FIRE PROTECTION ASSOCIATION

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30th IAFC Conference

See pages 12 and 13

Observe Fire Prevention Week • October 4-10, 1953

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adds a new dimension to firefighting

the new combined
true high-pressure fog
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Fast-striking high-pressure fog backed up by slugging volume power now makes it possible for you to fight fires as never before. Bean engineers add this greater dimension to firefighting techniques with their new combination high-pressure fog and volume fire-fighter. It boasts the biggest firefighting wallop ever packed into one unit. Two famous Bean pumps (operating simultaneously or separately) offer you the chance to attack the fire with 2 high-pressure and 4 volume lines. A 500-gallon tank allows you to start pumping seconds after you arrive at the scene. You can get in fast and keep slugging for a "quick kill."

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Fire Chief R. L. Henry—Annandale, Virginia

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From Lakefield, Ontario, Canada comes this statement: "**INDIAN FIRE PUMPS** should be standard equipment on every piece of fire apparatus."

Allan H. Clark
Chief of Fire Dept.
Sec. Treas. Dominion Assn. of Fire Chiefs

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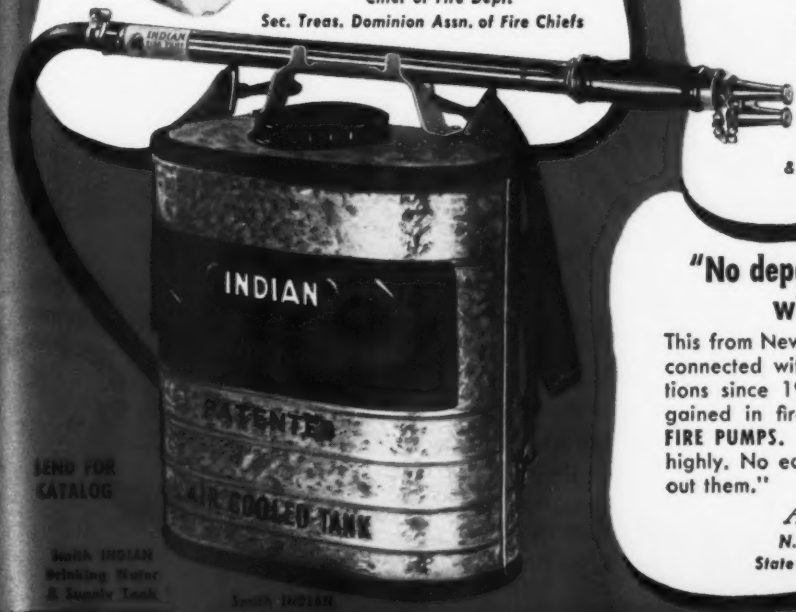
Ray H. Earle **Fire Chief**
Massillon, Ohio Fire Department



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& Fire Warden, Los Angeles County
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N. H. State Fire Marshal
State House, Concord, New Hampshire

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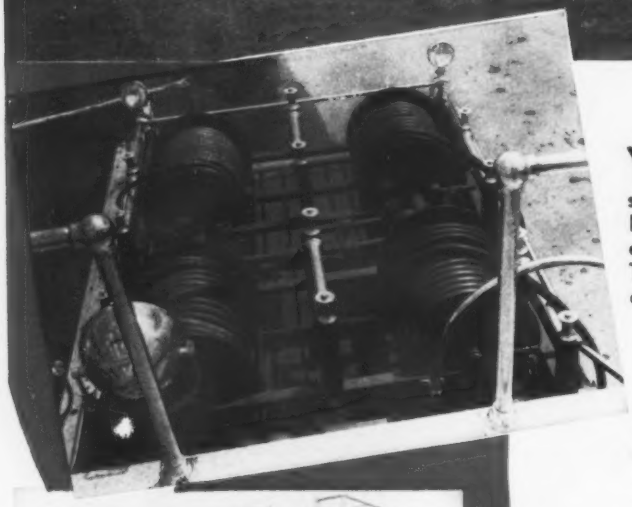
Photos show U.S. Coast Guard's Howe Crash Truck, equipped with FOUR Hannay Hose Reels with Explosion-Proof Electric Motors.



You can't buy a better hose reel than a HANNAY! Designed and built by firemen for firemen, Hannay Hose Reels are functionally correct in every detail of construction and service . . . *completely dependable in any emergency.* That is why those who know . . . civilian fire officials and military purchasing agents . . . insist on HANNAY!

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HANNAY ELECTRIC DRIVE HOSE REELS

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- Water and Vapor Resistant
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- Safe rewind speed; always under control

When YOU need dependable hose reels, either for standard or special performance, specify HANNAY . . . built to do a better job, in fire fighting, in industry, in national defense!

Crash Truck built by Howe Fire Apparatus Co., Anderson, Indiana

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HOSE REELS
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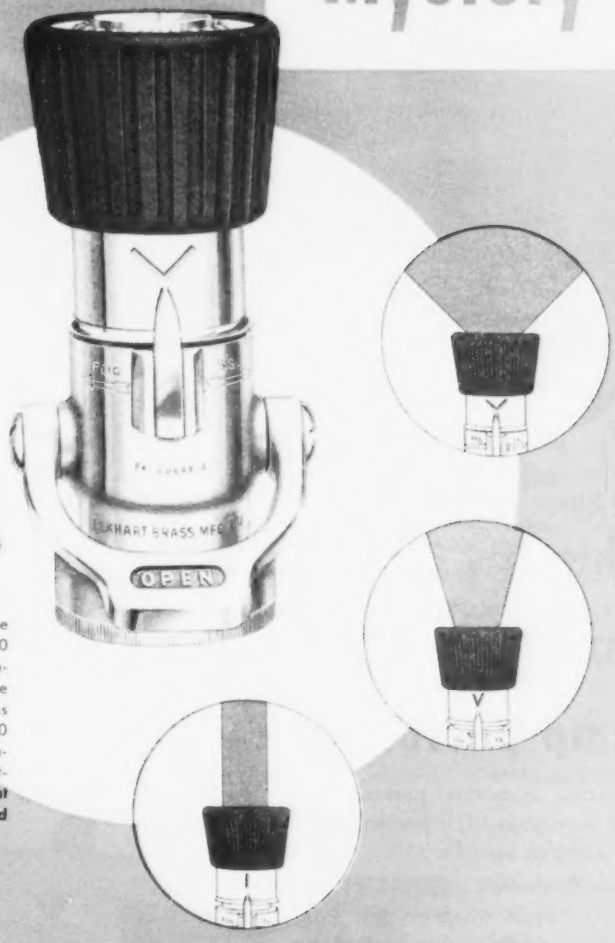
Mystery Nozzle



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WITH THESE EXCITING FEATURES

SET TO ANY STREAM WITHOUT LOOKING
Embossed stream indicators automatically "tell" your fingers—selects the stream

☆

SHUTS OFF IN ANY POSITION

☆

SET TO TURN ON IN ANY POSITION

☆

LOCKS TO THE STREAM YOU CHOOSE

☆

SEPARATE BALL TYPE SHUT OFF
(Brass to neoprene seat)

☆

IMPROVED GRIP—
serves as both grip and bumper. Mechanically sealed—it won't come off

You get the stream you want—at a finger's touch. And you get it fast. No need to see it... the embossed (Braille-like) Stream indicators "tell" your fingers by touch. The SELECT-O-STREAM *MYSTERY NOZZLE* locks to the stream you choose. Shuts off in any position. Set to turn on in any position. Protective curtain of water at the wide "V" ... 30° fog at the standard "V"... Straight Stream at the "I"—and any degree of stream in between. *Be sure to write for literature now!*

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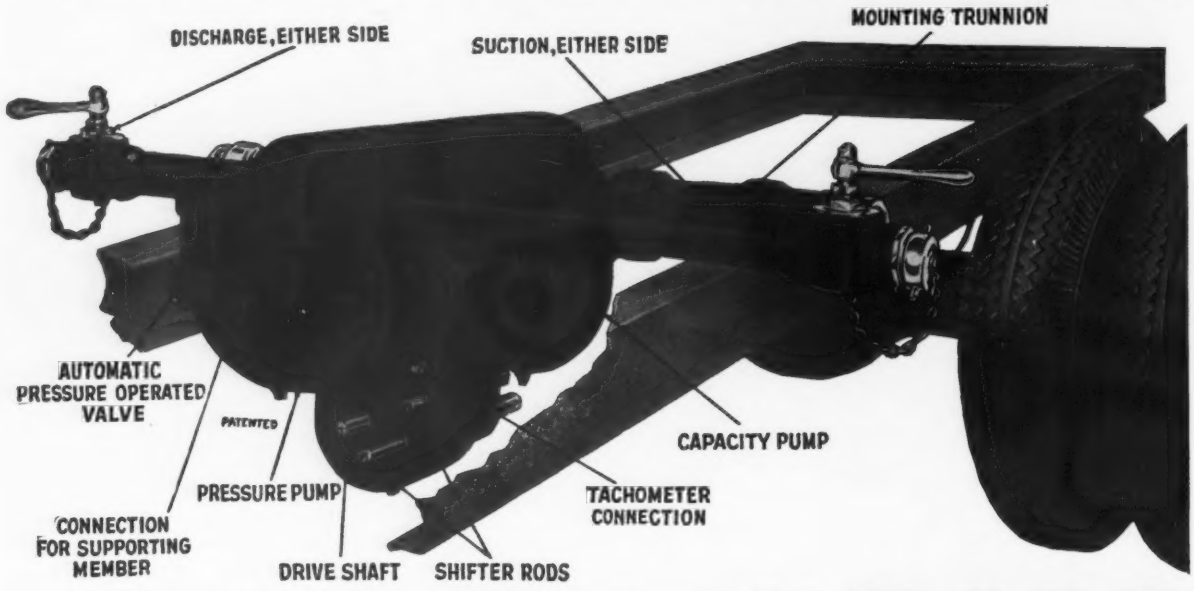


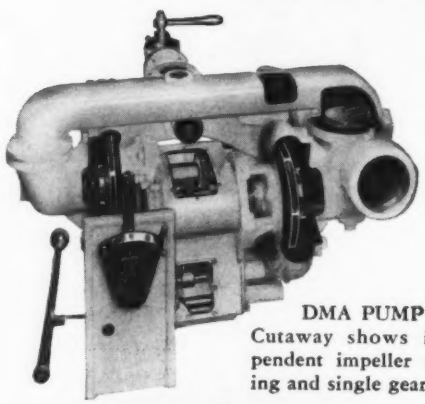
...that's why this BARTON-AMERICAN DMA can give you extra flexibility plus higher fire pump performance!

In *one unit,* you can get high volume at normal pressure . . . normal high pressures . . . and extremely high pressures for fog guns . . . all at very *moderate* engine speeds.

The two impellers are *independently* shafted and geared . . . to run alone if desired or together in series when needed. Low pressure pump handles dirty water without damage to the high pressure pump.

In addition, this Barton-American Duplex Multistage Centrifugal has *one point lubrication* . . . with all bearings running in oil inside *one* automotive-type transmission housing.

These *exclusive* design features give you *extra* fire-fighting flexibility and top performance with operating pressures to 400 pounds two stage or 850 pounds four stage. For full details, contact our Representative.



DMA PUMP
Cutaway shows independent impeller shafting and single gear box.

WRITE FOR BULLETINS:

Bulletin 8733 describes DMA Duplex Multistage Centrifugal Midship Pumps.

Bulletin 8734 describes DMB Duplex Four Stage Midship Pumps . . . pressures to 850 lbs.

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In Canada:
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Bulletin No. 261 of the National Board of Fire Underwriters says: "Experience has been that constant supervision, as rendered by companies maintaining a central supervising office, and under contract to inspect, test and maintain the system, *is the best form of service;* also, that where such central supervision is not available, then the inspections, testing and maintenance should be under contract with an experienced and dependable organization."

ADT Protection — based on more than fifty years of nationwide experience—completely meets these requirements. Whether the system operates through an ADT Central Station or is of the direct-connected type, ADT provides the specialized attention that is essential to dependable operation.

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Firemen

Volume 20 — Number 9

WARREN Y. KIMBALL, EDITOR
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Published monthly for the fire service members of the
NATIONAL FIRE PROTECTION ASSOCIATION

A VOLUNTARY NON-PROFIT ORGANIZATION
60 BATTERYMARCH ST., BOSTON 10, MASS.

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Cover Picture

On July 21–24 the Maritime Fire Chiefs Association conducted an annual meeting at Kentville, Nova Scotia. Halifax Fire Chief Fred C. MacGillivary was elected president of the Association during the meeting. Among guest speakers who addressed approximately 400 members and guests of the Association were NFPA General Manager Percy Bugbee and NFPA Assistant General Manager Charles S. Morgan. Kentville last year won the Grand Award for Canada in the NFPA Fire Prevention Week Contest. (See FIREMEN for February, 1953.) Shown on this month's cover is the presentation of the award by Mr. Bugbee to His Worship Roy W. Rottler, Mayor of Kentville. (*Left to right*) C. A. Thompson, Dominion Fire Commissioner, Ottawa, Ontario, and Chairman, NFPA Forest Committee; Mr. Bugbee; Mayor Rottler; D. Kemp Edwards, President, Dominion Fire Prevention Association; and Chief "Bev" R. Wade, Kentville Fire Department.

Mr. Edwards and Chief Wade are holding an artist's conception of a proposed trophy which will be awarded each year to the Canadian fire department which leads in Fire Prevention Week activities. The winner will retain the trophy for a year and the name of the fire department will be engraved on one of the six badges shown in the trophy.

In the foreground is a fire protection library containing NFPA publications which was presented to the Kentville Fire Department by the Dominion Fire Prevention Association. The Association also presented NFPA memberships to Mayor Rottler, Chief Wade, and the Kentville Bureau of Fire Prevention. (*Photo by Harold S. Bailey.*)

Longevity Pay

Several pay schedules recently adopted for fire fighters incorporate longevity features giving increased remuneration in each grade for years of service. This not only recognizes the fact that years of experience in dealing with fires and emergencies make a fire fighter more valuable, but is, no doubt, an effort to counter the loss of skilled fire fighters to better-paying jobs in industry. Recently, Governor Allen Shivers of Texas signed a firemen's salary bill establishing a seniority pay of $2 per month for each year in the fire department up to and including 25 years for members of departments in cities exceeding 10,000 population. This provides up to $600 longevity pay. Another provision was to provide for a referendum petition to be circulated on behalf of municipal fire fighters to establish minimum pay schedules.

Congress recently granted the fire fighters of the District of Columbia a new pay scale which provides $120 annual longevity pay for each grade for each five years served up to 25 years of longevity pay or $600. The new pay scale with the longevity provisions is given below.

Private, Class 1	$3,900
Private, Class 2	4,115
Private, Class 3	4,378
Private, Class 4	4,641–$5,301*
Inspector	4,813– 5,413
Asst. Marine Engineer and Pilot	5,038– 5,638
Sergeant	5,521– 6,121
Lieutenant	6,009– 6,609
Marine Engineer and Pilot	6,328– 6,928
Captain	6,590– 7,190
Battalion Fire Chief, Deputy Fire Marshal, Asst. Supt. of Machinery, Deputy Fire Chief	7,753– 8,353
Fire Marshal, Supt. of Machinery	8,459– 9,059
Fire Chief	12,500–13,300

* includes technician pay.

D. C. fire fighters also receive their complete uniforms and fire clothes from the department.

Neither of these plans propose a direct solution to the problem of encouraging experienced fire fighters who have completed a required 25 years of service to remain with the the department rather than to seek employment elsewhere. Such change of employment not only causes a loss of experienced fire fighters but makes it necessary for the department to train replacements. Accordingly, it might be suggested that if the principle of longevity pay is to be accepted, that the schedules be extended up to 35 years of service or to say age 55.

Toronto Fire Department, Host to IAFC

Chief Joseph Waterman
Toronto Fire Department

THE 80th Conference of the International Association of Fire Chiefs will take place in Toronto, Ontario, September 15–18, 1953. Headquarters for the Conference will be the Hotel Royal York in down-town Toronto. Chief George R. McAlpine of the Oklahoma City Fire Department, Oklahoma, President of the IAFC, will be presiding officer. First Vice-President is Henry G. Thomas of Hartford, Connecticut. Second Vice-President is Gray Burnett of Ottawa. On September 14, the day preceding the Conference, the Dominion Association of Fire Chiefs will also conduct a meeting at the Royal York Hotel.

Host-Chief to the IAFC meeting will be Joseph Waterman, Chief of the Toronto Fire Department. Chief Waterman heads 896 men including a deputy chief, an executive assistant, 2 platoon chiefs, 23 district chiefs, 156 captains, 699 fire fighters, 1 automotive mechanic, and 7 clerks. Also serving are a department physician and a caretaker of the department property. Fire fighters in the Toronto Fire Department are members of Local 113 of the International Association of Fire Fighters. At present, they serve in two platoons on a 56-hour work week with a day shift on 10-hour duty and the night shift on 14 hours. The two shifts alternate their working hours on Sunday of each week.

The 28 fire stations in Toronto include 23 pumpers, 6 hose wagons, 2 high-pressure monitors, 11 aerial ladders, and 5 service ladder trucks. The fireboat, "Charles A. Reed," is available for fire fighting in the dock area along Lake Ontario. Headquarters for the department is located on 152 Adelaide Street, West, near University Avenue.

Toronto has an area of 35 square miles including 10½ miles of docks and harbor facilities on Lake Ontario. During the shipping season approximately 4½ million tons of cargo are handled including a large amount of petroleum products and coal. The eastern end of the harbor area is used by major oil companies for petroleum refineries and storage of flammable liquids. To cope with the fire protection of the city, Toronto is divided into six fire districts, each the responsibility of a district chief. Fire stations and apparatus are so located that under normal conditions response can be made to any area within two minutes.

A fire department training school is conducted by a district chief with two captains assisting. The district chief is responsible for recruit training; one captain is in charge of driver training; and the other captain visits all fire stations and supervises drill periods which are conducted five days a week. Twice a year all captains in the department must attend the drill school where they are trained in 6-man units. When any new apparatus is received by the department, the officers and men who will use it are also trained at these schools.

The Fire Prevention Bureau has divided the city into 13 districts for inspection purposes. One inspector is assigned to each district while two special investigators inspect complaints and work in conjunction with the Department of Building Inspectors. The Bureau, in addition to being responsible for public relations work with press, radio, motion picture organization, and general audiences, also provides special duty men for all types of public functions. Special fire prevention patrols are used for the Canadian National Exhibition, the International Trade Fair, and the Sportsmen's Show. Special instructors from the Bureau also are sent out to industrial concerns to lecture on plant maintenance, training of fire brigades, and use of fire fighting appliances.

District chiefs conduct a continual inspection program within their own districts and work with the Fire Prevention Bureau to eliminate

Fire department offices at 152 Adelaide Street adjoining the headquarters fire station.

Fire department headquarters on Adelaide Street with crews, including chief officers, and squad, aerial, pumper, and high pressure units. *Toronto Fire Dept. photos.*

hazardous fire situations There is also an arson squad consisting of a fire captain and detective-sergeant of police.

Toronto has 20 fire radio units. A 200-ft. radio antenna is located at the north end of the city approximately 3 miles from the fire alarm telegraph building where the radio transmitter is located. Twelve of the radios are on chief officers' cars; one is on the car of the department physician; and 7 radios are on pumpers. It is anticipated that the department soon will have all first-line fire apparatus radio equipped.

In industrial and high-value areas Toronto has a high-pressure water system for fire protection. When fire alarms are received for this area, a pump pressure of 150 lbs. is maintained by the pumping station and may be increased or decreased 50 lbs. as required. There are approximately 227 miles of water main 6-in. or larger, and about 535 miles of mains of smaller pipe. There are also 8,352 fire hydrants and 719 fire alarm boxes. Total building assessment is slightly over a billion dollars while population is nearly 668,000. Operating cost for the Toronto Fire Department during 1952 was slightly more than $4,000,000.

Due to Provincial legislation passed this year, a metropolitan area is to be established which will join Toronto with its 12 suburban municipalities. This will increase metropolitan Toronto to an area of approximately 240 square miles and a population of about 1,250,000. Completion of this program is expected by January 1, 1954.

Advance Program

80TH ANNUAL CONFERENCE — INTERNATIONAL ASSOCIATION OF FIRE CHIEFS TORONTO, ONTARIO, CANADA

Monday — September 14th

All Day Registration — Foyer of Royal York Hotel
9:30 A.M. Business Session — Canadian Association of Fire Chiefs, Grand Ballroom.
10:30 A.M. Opening of Exhibits — Banquet Hall.
2:00 P.M. Business Session — Canadian Association of Fire Chiefs, Grand Ballroom.
8:30 P.M. Get-Together Party and Buffet Supper

Tuesday — September 15th

All Day Registration — Foyer of Royal York Hotel
10:00 A.M. Opening Meeting and Memorial Service
Grand Ballroom, Royal York Hotel
Presiding — Chief George R. McAlpine,
Introduction of Chief Joseph Waterman, Toronto Fire Department
Address of Welcome — His Worship, Allan A. Lamport, Mayor of the City of Toronto
Response to Address of Welcome — Chief Henry G. Thomas, First Vice President
President's Annual Address — Chief George R. McAlpine, President
12:15 P.M. Parade of Toronto Fire Department and Visiting Chiefs to City Hall
2:00 P.M. Business and Technical Session
A Report to the Fire Service on Civil Defense
Mr. Kyle P. Laughlin, Director, Fire Division, Safety Office, Federal Civil Defense Administration, Washington, D. C.
Fire Control of Fuel Gases
Mr. Mathew M. Braidech, Director of Research, National Board of Fire Underwriters, New York, New York
Looking Ahead in the Field of Fire Department Communications
Deputy Chief Thomas P. O'Brien, In Command, Bureau of Fire Alarm Telegraph, New York Fire Department, New York.
2:00 P.M. Ladies' Fashion Show and Tea
8:30 P.M. Fire Chiefs' Ball — Concert Hall.

Wednesday — September 16th

All Day Registration — Foyer of Royal York Hotel
10:00 A.M. Exhibits Open — Banquet Hall.
10:00 A.M. Technical Session
Concert Hall, Royal York Hotel
Relays — To Get Water on the Distant Fire
Mr. Hubert Walker, Manager, Motor Fire Apparatus Sales Engineering, American-LaFrance-Foamite Corporation, Elmira, New York
Fire Department Operations in Tornado Disasters
What Wet Water Did on a Large Fire in Philadelphia
Chief George E. Hink, Philadelphia Fire Department, Philadelphia, Pennsylvania
2:00 P.M. Technical Session
What Can Be Done to Reduce Fatal Fires Caused by Oil Stoves
Mr. Arnold C. Renner, Chief, Fire Marshal Division, Michigan State Police, East Lansing, Michigan
New Developments in Aviation Crash Fire Fighting Equipment
Mr. A. W. Krulee, Head of Section, Crash Fire Equipment Section, Bureau of Aeronautics, Department of the Navy, Washington, D. C.
Human Relations in the Rural Volunteer Fire Department
Mr. Norton T. Ames, President, Southern Wisconsin, Northern Illinois Firemen's Association, Madison, Wisconsin
2:00 P.M. Ladies' Tour of Toronto Metropolitan Area
7:00 P.M. Old-Time Corn Roast and Dance

Thursday — September 17th

All Day Registration — Foyer of Royal York Hotel
9:00 A.M. Election of Officers
9:30 A.M. Technical Session
Fires in Nursing Homes — What's the Answer to the Growing Fatality Toll?
Moderator — Chief Roi B. Wolley
What Can Be Done About the Growing Shortage of Fire Fighting Personnel?
Moderator — Chief William Fitzgerald, Seattle, Washington
Are We Getting the Most Out of Salvage Operations at Fires?
Moderator — Chief Reynold C. Malmquist, Minneapolis, Minnesota
9:30 A.M. Breakfast and Fashion Show for Ladies
10:00 A.M. Exhibits Open
2:30 P.M. Technical Session
What Progress in Arson Control?
Moderator — George W. Clough, Fire Marshal, Nassau County, Mineola, New York
How Can We Minimize the Hazards Incidental to the Transportation of Inflammables, Explosives and Other Dangerous Materials Over Highways and City Streets?
Moderator — Chief Edward E. Wischer, Milwaukee, Wisconsin
7:00 P.M. Annual Banquet — Concert Hall

Friday — September 18th

9:30 A.M. Business Meeting
Final Adjournment

(Above) Denver has one of the finest and most modern fire alarm central stations in the United States. The fire resistive structure is located in a park where it is safe from exposure hazards. A new FM fire department radio system is being installed. Voice amplification circuits to all fire stations were put in service during June 1953.

"Top-Flight" Fire Protection
Goal of the Mile-High City

By Warren Y. Kimball, Editor of FIREMEN and Manager, NFPA Fire Services Department.

DENVER, capital city of Colorado and known as the "Mile High City" because the 13th step of the State capitol building is exactly 5280 ft. above sea level, has always been proud of the high calibre of its fire fighting service. Chief Allie A. Feldman who took command of the Fire Department in 1946, after a 34-year tenure in that office by Chief John F. Healy, has endeavored to maintain high standards of the service while striving for modern techniques, methods, and equipment which will improve his department's efficiency.

Of special concern to Chief Feldman is the fact that since 1930 the population of the city has increased by more than 50 percent, and more than 10 square miles have been added to the city area. This makes it difficult to provide added fire stations and companies which the department feels are necessary to render a high quality of service to a city approaching one-half million population. The Chief is rightly proud of three new fire houses built under his administration, one in the high-value district and two others in outlying areas. The department now has 24 stations with 38 fire companies covering the 68 square miles.

(At left)
Chief Allie A. Feldman

THERE are 526 members in the department, including fire alarm and maintenance personnel and a fire fighting force of 468 officers and men. This is approximately 1 fire fighter for each 1,000 residents. Fire fighters in Denver still work a 78-hour week on a 24-hour-on and 24-hour-off basis with one "Kelley day" a month. However, in June, Denver voters granted all ranks a substantial pay raise by a 2-to-1 margin in a referendum that turned down a bond issue and other items that might have increased municipal expenditures.

(Below) The Class A municipal fire alarm system has operating boards for 24 box and 6 alarm circuits serving 270 public and 105 private fire alarm boxes and 23 fire stations.

In addition to 23 engine and hose companies and one pumper-ladder company, the department maintains 12 ladder companies and 2 squad companies. The department has reason to believe that the ratio of slightly more than 50 percent of ladder companies as compared to engine and hose companies is an important factor in maintaining effective fire ground teams of engine and truckmen. The ladder crews are not only important in saving life from fire but may reduce the number of additional alarms that would be required if the engine companies lacked this important support. At present four of the ladder companies are equipped with service trucks but under the department's apparatus replacement program these units will eventually be provided with 85 ft. aerial ladders.

TRAINING ranks very high in the program of the Denver Fire Department and is under the direction of Assistant Chief John T. Horan. Chief Horan, who is known to many men who attended the FDIC at Mem-

phis, also has headed the rules committee which recently prepared new rules and regulations issued under the direction of Chief Feldman. He is also brother to Neil Horan, the very popular attorney for the Colorado State Firemen's Association.

The Fire Prevention Bureau's 15 inspectors under the direction of Assistant Chief Murray A. Wolz make over 16,000 inspections and investigations a year. The fire department enjoys the finest cooperation from Chief Building Inspector George R. McCormack, the son of a former Denver fire officer. Mr. McCormack, who maintains a close relationship with the leading fire department officers, recently sponsored ordinances to regulate use of combustible building finishes in the city.

ANOTHER municipal official who works closely with the Fire Department is Secretary Erwin A. Anderson of the Denver Civil Service Commission. One cooperative project was a manual for rating efficiency for the fire department which is used as a guide for officers in making service ratings which are considered as a factor in grading candidates for promotion.

Another Denver fire officer that is well known to firemen of the State of Colorado is Deputy Chief Arthur J. Becker who for a number of years has been Secretary of the Colorado State Firemen's Association. Charles O. Bonnelle, who recently retired as Chief Colorado State Fire Instructor, was an assistant chief of the Denver Department. He has been succeeded as state instructor by Captain E. W. Crawford.

The No. 6 fire house in the high value district, housing an engine company and a ladder company was the first new station designed under the direction of Chief Feldman. In addition to a large apparatus floor the station has a large attractive dormitory, locker rooms with forced ventilation for individual lockers, generous wash room facilities, and an attractive kitchen.
The 4-story tower serves both as a hose tower and training structure. An ample paved yard includes parking space for fire fighters' cars and a pumper suction basin for drafting operations.

Assistant Chief John T. Horan, departmental instructor, designed this unique 5-story triangular training tower, located on leased training grounds adjacent to the South Platte River. The design is considered excellent for instruction because the trajectory of hose streams can be observed from three sides.

View of an open side of the training tower showing spray developed by impinging a wagon pipe stream against a ceiling. In the rear of this tower is a platform where cellar pipes may be discharged over the river.

(Below) The more recent No. 23 and No. 24 fire houses built under Chief Feldman's direction include some improvements over the No. 6 station put in service in 1950. Even larger apparatus doors have been provided. The drill towers have been improved. The No. 23 station on Federal Boulevard, shown below, houses an engine company and a ladder company. The No. 24 station, with two doors, houses Engine Co. 24. A headquarters building houses Chief Feldman's office, the Fire Prevention Bureau, the Firemen's Credit Union, and a well-appointed classroom for fire department instruction. Each of the new fire stations has a well-equipped drill tower. These supplement the department's training tower and grounds which is under the active direction of Assistant Chief Thomas Nalty.

(At left) One of three fire department training towers incorporated in the hose tower design of new fire stations. Facilities are provided for hose, ladder, pompier, life line, and pumper drills. Two hours of training and study are scheduled at each fire station five days a week.

Denver Fire Department training does not stop with dry run exercises. Through the cooperation of Sears Roebuck and Company, which wished to have 14 buildings removed from a development site, the department has been able to conduct a series of experimental fires.
The only stipulation placed by Attorney Ira C. Rothgerber, Jr., who made the arrangements for the company, was that each building must be completely demolished at the conclusion of a day's program. Each Wednesday for a 14-week period, ending in July, fire companies were detailed to participate in the test fires on buildings like this one which included various techniques of fog fire fighting.

At the conclusion of a series of test fires in the basement, first-floor, and cockloft this brick dwelling was allowed to burn to destruction. After the building was fully involved so that 1½-in. fog lines were no longer effective, control was demonstrated by application of a 500 gpm fog nozzle which knocked down the fire within a few seconds.
One result already obtained from the tests, according to Chief Instructor Horan, is an added appreciation of the value of fog applicators on fires in cocklofts and basements.

(Below) This water rescue unit was constructed in the fire department shops from a trailer formerly carrying an OCD pump. Compartments in the trailer carry underwater rescue equipment. The boat is of lightweight magnesium construction.

No. 22 Company, with 7 men on duty, mans three trucks located at the Denver Airport. These trucks include a 500 gpm pumper with 480-gallon tank, a crash truck with 500-gallon tank and small high-pressure fog pump, and a new 2000-gallon tanker shown above.
This tanker, constructed in the department shops under the direction of Assistant Chief R. L. Warne, from a former GMC gasoline truck. Shown in side compartments are milk cans used to carry extra foam liquid and 2½-in. hose used when supplying a pumper from the large tank.

The 500 gpm front-mount pump, which may be placed in service from the cab, supplies four pre-connected 1½-in. lines and three 1-in. fog nozzles adjusted for ground sweep. There is also a gated outlet for supplying a 2½ in. line. Recent tests showed that this pump could develop an excellent stream through a 500 gpm fog gun.

Three ground sweep fog nozzles discharging approximately 100 gpm at 100 lbs.

The No. 2 Rescue Squad car of the DFD on a Seagrave chassis is equipped with powerful flood and spot lights and large capacity generator. Two squad companies are in service and two other squad cars are in reserve.

Members of the Omaha Fire Department Rescue Squads with five of their vehicles including three rescue trucks, utility truck, and ambulance.

Omaha's Fire Department Rescue Squads

by Chief Eugene W. Fields

NOTE: *Chief Fields who now heads the Omaha Fire Department was the Rescue Squad's former Chief of First Aid and Rescue. Chief Fields was chosen by the Civil Defense Administration in Washington, D. C., to guide the nation's civil defense personnel in organizing and operating rescue squads in time of emergency. He has held the office of Vice-President of the International Assn. of Rescue Squads and First Aid and contributed much to expanding the Rescue Squad activities and usefulness, before he took two one-year leaves of absence to serve the national government. Chief Fields returned from Washington when named Chief of the City of Omaha Fire Department earlier this year.*

THE present scope of the Omaha Fire Department rescue work wasn't envisioned when the first unit made its initial run on June 9, 1936, while Arthur Olson was Fire Chief. The idea for the group is credited to Mr. Olson, but to begin with, the major objective was to have a group to care for firemen injured on duty.

Two former officers of the squad, now retired, collected ten thousand dollars from merchants to finance the first rig. This rig was retired from active service a couple of years ago, and the three trucks now in service were donated by Ak-Sar-Ben (Nebraska spelled backwards) which is a distinguished public service organization. This same organization has just recently purchased another unit which will be the fourth.

Members of the squads say they believe that Omaha and Portland, Ore., were among the first cities to start such rescue service.* Six cities in Nebraska and Iowa and several others over the country have modeled on the Omaha vans, which are converted 33 passenger bus models.

The reputation of this segment of the Fire Department is such that the number of calls per year has risen from about three hundred in 1936 to 2526 in 1952, which represents about half the total of alarms received by the fire department over a year's period.

The rescue service now has equipment valued at around 70 thousand dollars, all of it donated by groups of individuals, which listing reads like the inventory of a mail order house.

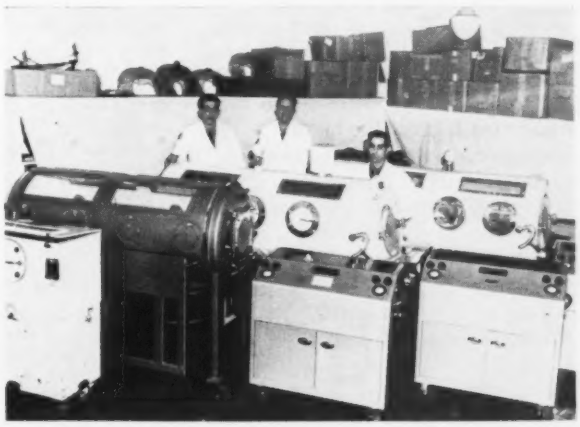
The list of more than two hundred assorted items includes: Four 2500 watt AC portable power plants with 1,500 feet of rubber cord each, resuscitators, a gasoline powered pavement breaker, shovels, splints, stretchers, grappling hooks, a set of surgical instruments, 15-ton jacks, carpenter tools, gas and oxygen masks, an electric saw, crow bars, a set of ice box keys, sledges and pipe cutters, an oxygen tank, sand bags, hot water bottles, boiler type iron lungs, chest type lungs, a baby iron lung, a laryngoscope, a gallon water jug, diver's helmet, a coffin hoist and jack for pulling cars apart, a boat, and positive pressure equipment.

Most of the rescue calls are routine. Almost half of the total requires some kind of first aid. About one-fifth of them are for persons suffering some type of heart attack.

Rescue Squad members, who are firemen, have been trained by the Douglas County Medical Society to use a laryngoscope to extract objects that have been swallowed. All 18 men of the rescue units are first aid instructors, and they school the whole department, even the office force, in that subject. Most emergencies call for skill in medical emergency treatment or mechanical ingenuity and a bit of psychology in handling distressed citizens. But there are times when "jack-of-all-trades" is a better description of the rescue men.

The Rescue Squads of the Omaha Fire Department recently combed their records and came up with the electrifying statement that: "We just don't lose any babies." These records showed that since 1936 the squadmen had scored a perfect record in ushering 191

(*Please turn to page 36*)



A small part of the "iron lung" equipment maintained by the rescue squads at the depot at Station 3. A recent inventory showed 60 units of iron-lung or resuscitator-respiration equipment available or in use, including 19 boiler type iron lungs and 18 chest types.

Photos on this page by Dan Mulcahey, Omaha Fire Department

*ED. — Among the earliest fire department rescue squads were New York City, 1914; Boston, 1917; Detroit, 1920; Washington, D. C., 1925.

Will You Make Progress Through

Fire Prevention Week?

WHEN you look at your fire department records a year from now, how much progress will you expect to see recorded? Do you expect to find that the number of home fires in your community have diminished? Will you be able to say that your year-round fire prevention program has cut down on loss of life and property? Will you be satisfied that school children and aged persons in institutions have lived through another year because of your fire department's achievements?

Traditionally, Fire Prevention Week serves as the time of the year when all members of the fire service launch a new attack on the careless and uninformed actions of individuals which lead to our nation's fire losses. You as a member of a fire department have planned a pattern of action for the forthcoming Fire Prevention Week activities, October 4–10, 1953. You expect to distribute effective Fire Prevention Week material which will help to jar the home owner and industrial property owner into a realization of the damage that fire can cause. By personal contact with the people in your community and by inspections of properties, you hope to present an effective story to accomplish the purpose of Fire Prevention Week.

However, human reactions are transient for the most part. After initial impressions, posters, folders, and other Fire Prevention Week materials may be discarded. A personal visit from a fire fighter, while welcomed, does not necessarily make a lasting impression. Repetition of your Fire Prevention Week program must be extended in some manner continually throughout the year.

Despite the fact that our nation's fire losses remain high and that thousands of persons die from fire each year, nevertheless many fire departments have made progress in educating the general public in following fire-safe practices. The marked emphasis on public relations during the past few years has resulted in greater public recognition for many paid, call and volunteer fire departments throughout the United States and Canada.

By far, the most important step in public relations has been the increase in personal contact and numerous regular inspections by fire department personnel which have resulted in reduction of fire losses in many individual communities.

Extensive Fire Prevention Week activities are no longer confined to the larger municipal fire departments. The paid, call, and volunteer fire departments in many smaller communities have been conducting effective programs. In Ridgefield Park, New Jersey, the fire department under the direction of Chief Joseph S. Floyd made personal contact with home owners in the community. Volunteers of six fire companies, totaling 120 men, distributed 300 copies of "The Reader's Digest" Guide for Fire Safety which was prepared last year with the cooperation of the NFPA.

In the Borough of Roseland in Essex County, New Jersey, 800 copies of the "Guide" were distributed by members of the Roseland Fire Department.

County-wide fire prevention programs are becoming more popular. Last year the fire departments of Monroe County, New York, joined with the Rochester Fire Department in a program that included a parade, fire fighting demonstrations and other public reminders of Fire Prevention Week. At Hartford County, Connecticut, there was a county-wide program with prizes awarded by the Hartford *Times* to the paid and volunteer departments outside of Hartford turning in the best report of Fire Prevention Week activities.

PERHAPS the most important recent development in Fire Prevention Week practices has been the inspection of homes by fire companies on inspection duty while maintaining radio contact with headquarters, making full use of radio equipment on fire apparatus. Many cities are employing this form of inspection program.

In this issue of FIREMEN we report in detail on two successful home inspection campaigns by fire departments, outlining the techniques followed. (See pages 20 and 38.)

Fire departments in many rural areas have also intensified their inspection programs for homes and farm properties. The June, 1952, and July, 1953, issues of FIREMEN contained articles explaining the development of the extensive rural fire prevention program in the State of Ohio. In cooperation with the Ohio Rural Fire Safety Committee, many fire departments in that state make periodic inspections of rural properties within their protection and have obtained valuable data on existing hazards, best routes to such properties, water supplies, and other details which would be of importance when fire occurs.

Recent figures compiled by the NFPA and the U. S. Department of Agriculture show that of the total yearly rural fire loss of $133,000,000 50 percent occurs in dwellings and 40 percent in barns. Six hazards are responsible for most dwelling fires and three hazards for three-fourths of all fires in barns. Dwelling hazards are: defective heating equipment, sparks on flammable roofs, inadequate wiring, unsafe and poorly maintained oil stoves and heaters, flammable liquids and lightning.

Lightning, spontaneous ignition of hay or feed, and inadequate or unsafe wiring are the major causes of barn fires.

Intensified inspection programs for such rural properties should be directed towards the elimination of these major hazards.

It is hoped that a review of these programs may be helpful to many fire departments who have not completed their preparations to utilize Fire Prevention Week as the start of their year-round campaign. Your records will show, a year from now, whether you have accomplished your objectives of increasing fire-safe practices in your community.

Three 85-ft. "big sticks" and 9 of the ground ladders used to make rescues from incendiary fire at 40 Isabella St., Boston. Only three occupants were able to escape unaided.

This close grouping of ground ladders used to rescue occupants and advance lines to all four upper floors was but part of the quantity of ladders raised to cover all upper floors and roof at this fire.

Boston's Top-Notch Ladder Men

ON last month's cover we showed a press photograph of ladder work at an incendiary fire at 40 Isabella St., Boston, Mass., and pointed out editionally the importance of well-manned truck companies. Subsequently, Deputy Chief Edward Montgomery of the Boston Fire Prevention Division made available official fire department photos of the ladder work and rescues at 40 Isabella St. on June 24. These pictures tell better than words why the Boston Fire Department has always been proud of its ladder service. Thirty-four truck companies covering 47.8 sq. miles provide the strongest ladder coverage in the United States. Two ladder trucks respond on first alarms to almost every building fire in the city. Buildings are quickly and thoroughly laddered for rescue, ventilation, and for advancement of hose lines to upper floors. It may be noted that the first-due trucks (located at the curb in front of the building) were almost "stripped" of ladders at this fire.

The ladders are of solid beam type. These are built at the Boston Fire Department Shops. (See August, 1952 FIREMEN.)

Shots of some of the rescues made by Boston ladder men.

Boston Fire Department photos by Anthony Costa.

Inspection of Dwellings in Saginaw, Michigan

by Chief Russell G. Braman

(From a talk given at the 25th Annual Michigan Fire College, Ann Arbor, June 24, 1953)

THE inspection of dwellings by the fire department in our city originated in plans for an organized nation-wide campaign to reduce some of the disastrous fires that were taking an enormous toll in human lives and property each year. These plans were not considered seriously in the past, because we realized that due to lack of communications between fire companies and fire alarm headquarters, our fire companies would have been out of service as far as fire fighting or answering alarms was concerned.

We did have a partial means of communication in the form of four officers' cars which were equipped with police radio, but we declined to use these cars to do inspection work because they were the chief's, assistant chief's and fire inspector's cars, which were busy in their own fields. These would be inadequate to supply communications for 9 engine and 3 ladder companies doing inspection work out in their respective company districts.

It was very apparent that we needed more radio equipped fire apparatus, not only for inspection work, but to operate more efficiently at fires. With this thought in mind, and very certain of the good results to be obtained with radio equipped companies, as an experiment we placed in our budget the sum required to equip 3 pumpers with radio transmitter-receivers. This kept the budget cost to a nominal figure and the city fathers accepted it.

With the delivery of the radio equipment, we picked 3 pumpers in widely separated sections of the city so that there would be at least one radio equipped pumper at every fire. We were still operating through the police radio station, which meant that every conversation had to be relayed by police operators. Installation of this equipment was handled by the police radio division, which gave marvelous co-operation.

After a year of operation this way, we commenced to talk about dwelling inspections, but decided that each piece of fire equipment should be equipped with radio before we could undertake this inspection work. Therefore, cost estimates were placed in the next budget to equip all pumpers and ladder trucks with 2-way radio. The budget was accepted and orders went forward for the necessary equipment which took several months to deliver and install. It was necessary also to spend some time training our firemen to use radio and acquaint them with procedures and methods of operating with the police department, to avoid confusion.

Saginaw fire companies inspect house by house.

This was the situation when we started serious planning for all our companies to take part in a home inspection program to start with Fire Prevention Week, in October of 1951.

THEN things began to happen. In rapid succession a series of home fires occurred in which several people were burned to death. Most of these were small children.

This was a horrible beginning for our well-planned inspection program. These deaths were seized upon by the local paper and radio stations as the primary reason for our inspections, which were to start during Fire Prevention Week, several days after the last tragic fire. They did not know that we had planned the inspection program for more than a year.

But tragic as it was, the published reports of these deaths by fire served to shock the public and put them behind our program almost 100 percent. We received many letters from individuals and organizations including the Chamber of Commerce and service clubs, congratulating us and wishing us every success and offering to help in any way they could.

Our firemen, who are human and mostly fathers, undertook this task grimly, with memories fresh in their minds of finding burned little bodies in ashes and rubbish of what was shortly before a comfortable home. That was the kick-off. More than 200 homes were inspected the first day. This figure increased each day as firemen became more acquainted with this work. Some 175 hazards were found in those first 200 houses that day. Most of these were overloaded circuits or circuits with oversize fuses, with many fuses jumped entirely.

Going back for a moment, I would like to mention some of the pertinent parts of our plans. We realized that more than 100 firemen had to have some training or briefing on what the inspection of dwellings

should produce, what they should look for in the matter of fire hazards in the average house, what they should say, and what advice to give to the occupants and owners of dwellings.

With this in mind, we designed a report form, to be made out by each inspector on the scene, together with a carbon copy. The original form on white paper was to be given the home owner. The carbon copy on yellow paper was sent to headquarters and filed by the members of the Fire Prevention Bureau.

When we drew up the question form originally we had about 50 questions more or less, which we intended the inspectors to answer, but after much discussion we realized that our men were starting out green in this work. Many of our boys were new firemen and uncertain of what constituted fire hazards, so we cut a lot of questions from the original form and developed one that had only five basic questions. These are simple enough for even the rookie fireman with only a few weeks of experience.

THIS was our first form (shown below). Since we have used it we have wanted improvement, and as a result our next forms will be printed a little differently.

When our firemen complete their inspection, they fill out this form

SAGINAW FIRE DEPARTMENT

HOME INSPECTION REPORT

The object of this inspection is to assist the owner and occupant of their home in locating and correcting conditions that may effect the loss of life and property in their home by fire. It is urged that the findings of this report be carefully reviewed and acted upon at an early date.

Owner_____ Address_____

Occupant_____ Address_____

1. BASEMENT Condition of wiring_____ Rubbish_____
2. FURNACE Condition of smoke pipe_____
   Protection over smoke pipe_____
3. ELECTRIC WIRING (In general)_____
4. FUSES Over fused_____ Size_____
5. ATTIC Condition of wiring_____ Rubbish_____

RECOMMENDATIONS

1. _____
2. _____
3. _____
4. _____
5. _____

REMARKS

_____

_____

Inspected by _____

Station No. _____

Date _____

KNOW THE LOCATION OF THE NEAREST FIRE BOX!
The location is _____
KNOW YOUR FIRE DEPARTMENT NUMBER! 4-9161
Give information clearly and calmly-- Don't get excited.

PREVENT FIRES

with their recommendations to eliminate the fire hazards found, sign their name and station number and the date, tear off the white copy and give it to the home owner or occupant, and bring in the yellow copy to the fire prevention bureau or chief's office where, after the information is studied, it is placed on file. Members of our fire prevention bureau then go back on the most serious cases to get the hazardous conditions abated as soon as possible. This keeps the regular inspectors busy and also the city electrical inspector, and building inspector.

You will notice that on the bottom of this form we have a sentence which says "Know your Fire Department phone number," and we print the Fire Department phone number.

LAST fall we had an inspection of public and business buildings by the State Fire Prevention Association, which had about 50 inspectors doing the job. At that time, Richard E. Vernor, of the Western Actuarial Bureau, whom many of you know, gave fire prevention talks at the high schools and junior high schools. I accompanied him on these trips and at one of the schools where we had about 300 students assembled, I asked Dick Vernor to ask the students how many knew the Fire Department phone number. We were surprised to find that only 4 or 5 out of that group actually knew the number. Try it yourselves some time when you are talking to a group of people or students and see for yourself how many are familiar with your phone number.

Our dwelling inspection program starts near the first of June and winds up in the Fall, in October or November, whenever nasty weather sets in. In our planning, we considered the weather important, as our whole program is based upon the home owner or occupant inviting us into their homes, and not being compelled to do so. We want to enter these houses on a friendly basis and not track snow, slush and mud through a nice home.

This inspection program is a wonderful opportunity to sell the fire department to the people, who in some cases may have, through ignorance, regarded a fireman as a lazy galoot, lounging around, sleeping or playing checkers. There is no better way, in my mind, to improve fire department public relations than this free, voluntary inspection program by courteous uniformed firemen. Considering all these things in our planning, we set up a briefing course, wherein we brought all our fire companies, two or three at a time, to our central station to attend a class of instructions as to what we required of them.

We stressed courtesy, politeness, and carefulness in making their way through people's homes and property. We require at least two men to enter a home together. Our men knock at a door, remove their caps when the housewife meets them, explain their reasons for being there and politely ask the lady to invite them in. In 99 cases out of 100 she will be very pleased to do so, apologizing profusely because her beds are not made and her hair looks a sight. Our boys, by now, have learned how to pass that off and go about their business so that in an average home they will take about

(*Continued on page 34*)

SAGINAW FIRE DEPARTMENT
FIRE PREVENTION BUREAU
HOME INSPECTION SERVICE

Dear Home Owner:

In the past decade, our city has experienced many tragic home fires, in which several lives have been lost. Since the first of the year, many people throughout the country have been burned to death in their homes.

The object of this letter is to help prevent such tragedies in Saginaw, and to remind you that on..... firemen visited your home and made the following recommendations:

.....

.....

.....

.....

.....

If you have already acted on the recommendations made, we congratulate you. If you have not, we urge you to do so at once.

Remember: The life you save may be your own.

Sincerely yours,
Saginaw Fire Prevention Bureau
Saginaw Fire Department

KNOW YOUR FIRE DEPARTMENT NUMBER
GIVE INFORMATION CLEARLY AND CALMLY
DON'T GET EXCITED
FIRE DEPARTMENT NUMBER
4-9161

Fire Protection at Kodak Park

By Allen L. Cobb, President of the NFPA, and Safety Supervisor, Kodak Park Works, Eastman Kodak Company, Rochester, New York.

TO APPRECIATE the fire problem at Kodak Park one requires some knowledge of the magnitude and variety of the fire problems of this unique industry. Kodak Park, Eastman Kodak Company's film, paper, and chemical plant, is the largest single plant in the photographic industry. It is also a "self-contained" type of plant, for processing starts with such raw materials as paper pulp, cellulose acetate, and metallic silver, and ends with finished photographic paper and photographic films.

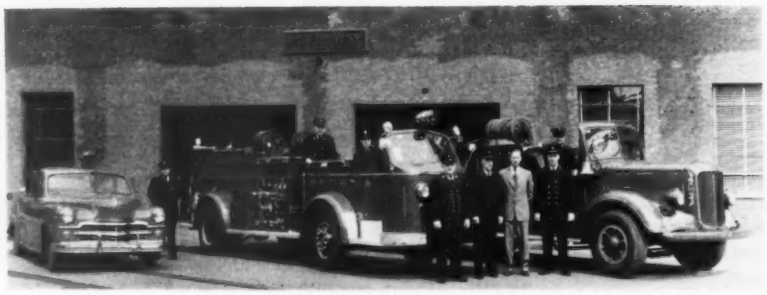
Perhaps less well known than the photographic films and paper are the organic chemicals which go into photographic developing materials. The very complex organic chemicals used in the processing of color films and papers are all made at Kodak Park, and one unit, the Synthetic Chemical Plant, lists in its catalog approximately 4,000 chemicals for laboratories of the United States.

Kodak Park is virtually a city with its 20,000 employees and more than 150 large buildings contained in an area of about three miles.

Fire problems are complicated by the use of products which are not only sensitive to light but also can be affected by many materials. In previous years the cellulose nitrate base used for film materials created a very special and severe hazard of its own. This hazard has been eliminated by the complete adoption of a safety type base but the manufacture of the new base still involves fire problems of flammable liquids.

The study of fire problems, recommendations for protection and the control of fires that may occur are the concern of the Department of Fire Protection and Safety assisted by technical personnel from the Engineering Department, Research Laboratories, Department of Manufacturing Experiments, and many others.

Because of the unique operations, it has become necessary for Kodak Park to do its own building construction and to design, install and maintain its machinery without the assistance of outside concerns. This also applies to fixed fire protection equipment, sprinklers, and all special extinguishing systems. This equipment is designed in the Engineering Division on recommendations from the Department of Fire Protection and Safety. It is installed by the Field Departments of the Engineering Division.



Kodak Park Fire Department

(Left to right) Fireman Harold Perkins, Captain Floyd Grimes, Fireman Schuyler Kuhn, Inspector Walter Becker (behind windshield), Chief C. Van Lare, Deputy Chief (instruction) Joseph Plouffe, Allen L. Cobb, Director, Fire Protection and Safety, Deputy Chief (operations) Karl Boeyink, Fireman Arthur Ramph, Fireman Milton Eckrich (behind windshield). *Photo by Industrial Studio, Kodak Park.*

Kodak Park has its own water supply, drawing from Lake Ontario through a complete water treatment plant and delivering water through 30- and 24-inch mains nearly six miles in length to a large reservoir and pumping station. This supplies the plant with water for both processing and fire protection. The adequacy of this water supply system is illustrated by the fact that it has been used during emergencies to supply the City of Rochester with an appreciable proportion of its water demand. Fire mains in Kodak Park range from 10 inches to 16 inches in size.

After initial study by engineers of the Department of Fire Protection and Safety and after the layout and installation by the Engineering Department, the entire system of fire mains, sprinklers and special devices comes under the control of the Kodak Park Fire Department which is a unit of the Department of Fire Protection and Safety. The main job of the Fire Department is, of course, the supervision of the automatic equipment upon which principal reliance for fire safety is placed. With the many chemical operations, however, it is not surprising that occasionally small fires do start and that once in a while there may be some fire situation requiring a well-equipped and alert fire-fighting organization. The Kodak Park Fire Department is equipped to take care of most fire emergencies.

While the resources of the Rochester Fire Department and of the Monroe County volunteer firemen can be called upon in emergency, the specialized nature of Kodak Park operations has necessitated that all fires except extreme emergencies be handled by its own department. In the fire of November, 1951, city and county units were called and operated effectively with the Kodak Park Department.

THE history of the Kodak Park Fire Department goes back many years, but its present day development began with the appointment of Chief R. C. Ruckholt on November 3, 1913. Chief Ruckholt had spent twenty years in the New York City Fire Department and came to Kodak Park with the background of practical first-hand fire fighting experience.

The organization under Chief Ruckholt was that of a volunteer brigade of approximately 150 men. Equipment was hand drawn and included two hose reels, a ladder truck, and a tool cart.

A number of the men formed a night fire-fighting unit whose members slept in a dormitory above the

fire station and were available for fire emergencies twenty-four hours each day.

In earlier days this was a popular organization at the Park and there were many men without families who enjoyed living in the plant.

In time, however, with more and more men owning their own cars and preferring to avoid the restrictions required by this type of organization, there was a gradual reduction of membership in this force.

With the growing size of the plant the department was motorized. The first White hose truck was furnished in 1920. It was followed by a Prospect hose truck (still in service on reserve basis) in 1927.

In the early part of World War II it became obvious that the volunteer fire organization was no longer sufficient to cope with the growing size of the plant and its complex problems. The night volunteer company could not be maintained under wage and hour provisions and in any event was proving less popular and could not be maintained at full strength. The department was, therefore, organized as a full-time professional department for 24-hour operation under Chief William Olin.

Equipment has been added gradually, including a Mack 750 gpm pumper in 1943, a chief's car and emergency trailer, and most recently an American-LaFrance 750 gpm pumper at the end of 1952.

THE department now includes Chief C. Van Lare and two deputy chiefs. Karl Boeyink is Deputy Chief for operations and Joseph Plouffe is Deputy Chief in charge of the instruction program. Four fire companies operate on a rotating basis to provide coverage twenty-four hours of the day. Each company consists of five firemen and a captain.

A more recent addition to the Fire Department has been a group of four fire inspectors who are in charge of the cutting and welding permit procedure and who make inspections of fire protection equipment. Regular firemen also are used in the periodic inspection and checking of the underground valves and of the 768 indicator posts and 172 hydrants.

Because of the many chemical materials at Kodak Park, the Fire Department carries demand type oxygen equipment and the men are well trained in its use. This equipment has proved very valuable on a number of occasions. Since the plant contains the world's largest single ammonia refrigerating plant and processing requires use of considerable quantities of strong acids, the Fire Department is supplied also with complete rubber suits for use with the oxygen breathing equipment, for protection of fire fighters who may have to control leaks or spills of these materials. The Department also has equipment to control escaping gas from defective cylinders and is regularly called in the event of solvent or of caustic or acid spills.

The two pumpers at Kodak Park are essentially standard units but are provided with extra equipment particularly suited for use in the plant area. The new American-LaFrance truck carries 750 pounds of carbon dioxide in ten 75-pound cylinders, with reels carrying 200 feet of hose and with horns especially suited for application of carbon dioxide into the cells of high voltage electrical equipment. This is an important accessory because of Kodak Park's electric generating and distributing plant which operates at 13.8 kilovolts in modern enclosed switchgear. Fire experience with such units has shown the desirability of having a carbon dioxide system which may be used to flood cell compartments and maintain an inert atmosphere long enough to allow temperatures to go below the ignition temperature. In addition, of course, the CO_2 equipment may be used on flammable liquid fires.

Both trucks carry adequate supplies of oxygen breathing apparatus and, like the Chief's car, are equipped with two-way radio tied into Kodak Park's radio system. Through this system communication may also be maintained by telephone with the city and county radio systems.

The Park has its own fire alarm system of 50 boxes with 641 auxiliary boxes. The system has a recorder at the watch desk in headquarters. There are three fire alarm boxes connecting it with Rochester City Department.

The department is, of course, supplemented by departmental fire organizations throughout the more than 400 acres of the plant, the most notable is that of the Film Casting Department where every man is trained in fire fighting and has his assigned fire station. Co-ordination of this work, training in the use of first aid fire extinguishers, and other training is also the responsibility of the Kodak Park Fire Department.

Plans are underway at the present time for supplementing the paid organization with the formation of two auxiliary units, one to be based in the Kodak West area, about a mile and a half from the main station, using the Prospect truck in a new station recently erected, and the other to supplement the main department at its headquarters in Kodak East. These will be mobile, well-trained units capable of working with the department or independently if necessary. These units will make use of shift operators to provide complete coverage by the entire organization for twenty-four hours, seven days of the week.

Pay Increase in Illinois

IN July Governor Stratton of Illinois sighed legislation increasing the minimum pay requirements for municipal firemen. In cities of population between 5,000 and 25,000 the salaries are upped from $150 to $300 per month, and cities above 25,000 population are required to increase minimum salaries from $175 to $325 for cities under 75,000 population, and to $350 for larger communities. Cities are permitted to charge 1 cent per package on cigarettes and certain other new taxes to raise municipal revenues.

Blue Lights for Firemen's Cars

THE State of Washington recently adopted Regulation No. 310 permitting the use of blue lamps on authorized motor vehicles. The regulation permits firemen, through the approval of their chiefs, to use one blue lamp on the front of their private cars when on emergency duty. The lamps must be approved by the Commission on Equipment headed by James A. Pryde of the Washington State Patrol; Director W. A. Bugge, State Department of Highways; and Director Della Urquhart.

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"Moving In" on a Crashed Bomber

When a Lancaster bomber crashed and burned in a swamp area near Comox, British Columbia, last year, the rescue and fire fighting jobs were the responsibility of the Comox Volunteer Fire Department. In this article, Gerald A. Grant, Secretary of the Department, relates the techniques employed by fire fighters in approaching the burning plane despite exploding ammunition and difficult terrain.

AT 4:56 P.M. on November 27, 1952, a fire alarm was received by the Comox Volunteer Fire Department. A 4-engine Lancaster bomber had crashed and was burning in a swamp area just outside of town. Response to the alarm included a 500 gpm pumper with a 600-gallon water tank and an 800-gallon tank truck with a 150 gpm pump. The crews consisted of 5 fire fighters and Chief E. F. Dawson and Deputy Chief Alex Bell on the pumper, and 6 more fire fighters on the tank truck. Later 6 other volunteers arrived to assist in the fire fighting.

The crash scene was approached from the highway by crossing a field for about 200 yards, removing a section of fence and proceeding along a drainage ditch for a quarter of a mile, following the path of a Royal Canadian Air Force ambulance which arrived at the scene just prior to our equipment and whose members were engaged in bringing out the first casualty on a stretcher.

This whole action was carried out in the dark, in dense swamp and willow growth. Through this growth, we immediately laid a 1½-in. high pressure line with a 1½-in. Navy all-purpose fog nozzle, a distance of 500 feet to the nose of the crashed aircraft.

The nozzle crew, Firemen Gelling, Farmere and Jane, under Deputy Chief Bell, was informed by R.C.A.F. personnel that a survivor was still alive in the burning aircraft. The second fuel tank had ignited just prior to our arrival and the fuel was floating and burning on the swamp-water, in an area of ten to twenty feet in all directions from the fuselage. Fire fighters reduced the flames near the nose of the aircraft with the fog-nozzle. With the protection of this water spray, Deputy Chief Bell managed to make his way to the cockpit, but was unable to rescue the survivor, who appeared to expire just as Chief Bell arrived.

The burning fuel, by this time, had spread to the rear of the nozzle crew and with Chief Bell they were forced to withdraw. This attempted rescue was completed in a matter of three to five minutes after the arrival of our equipment. We were later informed that this airman died from loss of blood and was trapped in the plane by debris.

Fire fighters of the Comox Volunteer Fire Department encountered this crash scene in the swamp area. Despite exploding ammunition and burning flares, proper application of water fog enabled Deputy Chief Bell to reach the plane cockpit to attempt rescue of crew members.

Chief Dawson, after supervising the arrival of the tanker and its connection to the pumper, made a hurried survey of the crash for survivors and possibility of better attack, but decided that all that could be done was to continue with the fog application to reduce the heat and protect the bodies. During this survey another survivor was located by R.C.A.F. members and removed on an emergency stretcher consisting of one section of our 30-foot aluminum ladder.

The Fire Department continued to apply water with the fog nozzle to reduce the heat from the burning fuel. (Later investigation showed little fire damage to the cock-pit area and that all crew members were killed as a result of crash injuries.) The tanker supply was exhausted after twenty-five minutes of pumping and the pumper supply after an additional fifteen minutes. We then took suction from the nearby drainage ditch and continued pumping until 9:30 P.M. At this time action was discontinued as all the fuel had burned and the wreckage was only smouldering. Ammunition and flares were exploding all the time from our arrival until about 8:30 P.M. when magnesium structures started burning; this had pretty well subsided by 9:30.

SUBSEQUENT investigation showed that two civilians, Robert Waters and A. DeCuyper had run from the highway to the scene of the crash and assisted the two survivors away from the burning aircraft, and that DeCuyper was actually at the cockpit when the second wing tank ignited. He and one of the survivors were thrown a distance of thirty feet into the swamp willows. Then he re-located the survivor, who was removed on our ladder section.

We believe that this is the first multi-engine aircraft crash-fire that has ever been attacked by a volunteer fire department, unassisted. We also believe that any fire department with adequate water supply and sufficient fog nozzles could reduce the heat sufficiently to rescue survivors, and that the risks from fuel explosion, and possible injuries to personnel operating fog nozzles in such action, are not serious.

(Readers are referred to NFPA No. 406 Aircraft Rescue and Fire Fighting Techniques for Municipal and Rural Fire Departments. Price 35 cents per copy. — ED.)

Report On A Fire

By Chief Clarence P. Trentz, Lead, South Dakota

WE want to report a fire in the E. E. Stonefelt home, fought by the Lead Fire Department earlier this year. This was our first attempt with fog as we always used 2½-in. hose with 1¼-in. straight stream tips. After reading about fog fire fighting we made preparations to apply the theory in a practical fire test.

The results were more than we expected as shown by the accompanying photographs. We are a small paid department with one chief, two captains, and six firemen; with one captain and three fire fighters on each 24-hour shift.

Our chance to try fog came at 1:30 A.M. The house was almost fully involved when our men arrived. All windows on the first floor had broken or melted. Much of the glass had run down the window sill. Flame was coming out of the corners of the roof and extending upward 30 ft. from windows. There was another house 16 ft. away and the heat was so terrific our boys opened up a full spray to get to a window to make the first attack.

About one-minute application of fog in this window (see photos) did most of our work knocking down the main fire. At this time the chief arrived from home and another 1½-in. line was run to the opposite side of the house and a good shot of water was put in the window. Right there we had the fire where we could handle it. With a little mopping up it was all out and we had used about 200 gallons of water. The paint on the house across the driveway was blistered.

Had we kept to the old method of lots of water and straight streams we would have used barrels and barrels of water and perhaps would have lost the entire house with a good chance of having the garage and another house go.

While we are not trying to tell anyone what to use, we are firm believers that the fellows talking about fog know their fire fighting and hope that more fire departments give it a try.

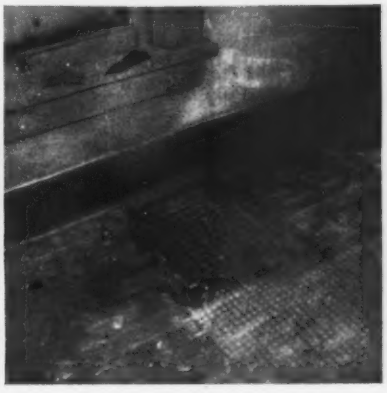
First line applied through 2nd window only 16 ft. from exposure.

Second line applied at opposite side. Initial pump pressure of 200 lbs. cut to 150 lbs. after 3 minutes.

This is room where Capt. George Hippman and nozzleman Pat Coll made first attack from window directing fog at ceiling and built-in cupboard.

Fire started in this 1st floor workshop containing model airplanes, power tools, gasoline, paint and varnish.

When occupant who discovered fire came downstairs and opened door at right, fire flashed through first floor. Man jumped from window and occupants sleeping upstairs were awakened and jumped from porch.



Although tarpaper under eaves was burning, only fire found upstairs was at this register and was extinguished by a cup of water.

Providence Inspects Underground Gasoline Tanks

From a report by Chief Leo E. Gorman, Chief, Bureau of Fire Prevention, Providence, Rhode Island. (NFPA Member Fire Department.)

PROMPTED by numerous instances of reported leaks in underground gasoline tanks throughout the city and state during recent months, Battalion Chief Leo E. Gorman of the Providence, Rhode Island, Fire Prevention Bureau, suggested to Chief of Department Lewis A. Marshall that the Fire Prevention Bureau launch a program of inspecting all underground gasoline tanks in the City of Providence that had been in the ground 15 years or more. Chief Marshall felt that it was an excellent idea, gave his approval, and pledged his wholehearted support.

Chief Gorman immediately contacted Joseph Connell, Executive Secretary of the Rhode Island Petroleum Industries Committee and outlined the plan to him. Mr. Connell agreed to prepare a letter to be sent to all of the petroleum dealers in the state asking them to meet with Chief Gorman.

On March 23, 1953 a meeting of the industry was held in Chief Gorman's office in Fire Headquarters. Attending the meeting were the following representatives of the Petroleum Industry: A. C. Libby and C. R. Ellis, Gulf Oil Corporation, Mark Gilligan, Shell Oil Company, H. J. Gilbert, M. L. Westlake, and C. C. Wagg, Socony Vacuum Oil Company, K. Popkiski, American Oil Company, H. P. Storey, Sun Oil Company, L. V. Stansfield, Tide Water Associated Oil Company, D. Z. Blakeney and F. W. Brigham, Esso Standard Oil Company, B. C. Dean and Cliff Lindell, Atlantic Refining Company, and Joseph Connell.

Representing the Fire Department at the meeting were Chief Gorman and Captain Thomas J. Fitzgerald of the Fire Prevention Bureau.

Chief Gorman outlined to the group the purpose of the meeting. He explained that as a result of several instances of leaking gasoline tanks, both in the city and around the state, during the past several months he felt that an all-out, city-wide inspection of all underground installations, in the ground 15 years or more, was imperative. He pointed out that in view of the fact that in many instances the tanks were located in residential areas, adjacent to dwellings, a leaking tank could charge the dwelling with highly flammable vapors. He further pointed out that by launching such a campaign he hoped to avoid such an occurrence. He told the group that he fully realized the magnitude of the project and that he was aware that it would take some time to complete it. He also told them that it was his desire to conduct the inspection with a minimum of inconvenience to station operators. He hoped that a schedule could be worked out whereby the program could go along without any appreciable disruption of operation for the station operators.

The plan received complete approval from the petroleum representatives. They all agreed that it was a good idea and something that was needed and in the long run would benefit the industry. They all agreed that the recent publicity on a leaking tank that occurred on state property was not favorable to the industry whose record, considering the product handled,

Members of the Providence Fire Prevention Bureau make the first of a series of inspections of underground gasoline tanks. Chief Gorman and Captain Fitzgerald of the Bureau are second from right and extreme right, respectively. (*Providence Journal — Bulletin Photo.*)

is excellent from the fire safety standpoint. Chief Gorman suggested that the press be called in to the meeting and be informed of what was being done to avoid such occurrences in the future. He felt that the public should be told of the steps being taken by the industry and the fire department to protect them from the possible danger of such an occurrence. It was agreed that the Executive Secretary, Joe Connell contact the press and give them a complete story of the meeting.

A general discussion of all phases of inspection accuracy of methods, and possible difficulties to be encountered, took place.

The following decisions were reached to the satisfaction of all present and notification was sent by the Executive Secretary to all members of the petroleum industry.

1. Each company agreed to prepare a duplicate list of company owned tanks and an additional list of consumer owned, but company serviced, tanks. These lists were forwarded to Chief Gorman.

2. The lists were checked against department records and determination made on locations to be inspected. In every instance this applied to tanks 15 years or older.

3. After supplying the department with a list of company owned or company serviced tanks, each company reviewed with the Chief the procedure to be followed by company personnel in making the tests.

4. Tests of tanks will include the following where and when necessary:

   (a) test made by audit
   (b) test made by stick or tape
   (c) test made by air pressure

5. When test is concluded, each company will furnish the Chief with a certificate or notification as to the result of the test.

WHEN all of the tests are concluded, the department will have a complete file as to the condition of all tanks 15 years or older.

At the present writing most of the lists have been received and records checked in the department files. The exchange of lists will also serve to bring the records

of every installation up to date and correct any inaccuracies that may exist.

On May 13th the first actual test was conducted at a Sun Oil Company serviced station. The pressure failed to hold and it was necessary to dig around the tanks to find the leak, which was found to be in a union in the vent pipe where it went underground. This was corrected and the test again applied. This time it proved successful and the tank was pronounced O.K.

While it is realized that it will be sometime before the entire program is completed it is felt that the inspection will give both the Fire Department and the Petroleum companies an accurate picture of the condition of the older tanks in the City of Providence.

Suggested Leak Test Equipment for Underground Tank Installation

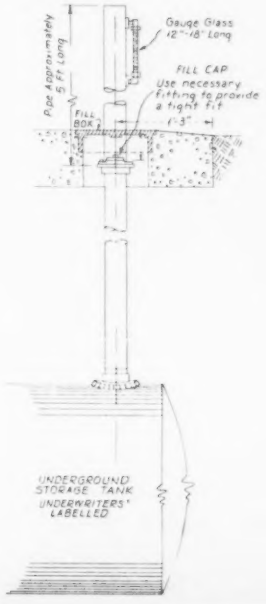
AN EXPEDIENT method of testing for leaks in underground gasoline storage tanks is illustrated by the diagram at right. This method, used by some fire departments on the West Coast, helps to minimize the necessity for digging into the soil to clear the tank fill pipe.

As the diagram shows, a simple glass gage is attached to a pipe, which should be approximately 5 feet in length. This pipe is inserted into the tank fill pipe and gasoline is pumped into the tank until the glass gage indicates full capacity. If leakage occurs at any point below ground level it will be apparent since the level of the gasoline in the gage will begin to lower.

Care should be taken to have an adequate fitting to provide a tight junction where the test pipe is inserted into the tank fill pipe.

Fire chiefs planning a program of inspecting underground tank installations should consult NFPA Standard No. 30-L — Suggested Ordinance for the Storage, Handling and Use of Flammable Liquids.

LEAK TEST EQUIPMENT
TYPICAL UNDERGROUND TANK INSTALLATION



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One view of the forest fire which destroyed more than 2500 acres.

ONE of the worst forest fires to occur in the State of New Hampshire in recent years started on June 22 and continued for more than two weeks. More than 2,500 acres of forest area in the Ossippee mountain range were destroyed, despite the efforts of about 500 fire fighters and army personnel. In addition to back pack pumps and portable canvas tanks, barrels, wash tubs, and 55-gallon oil drums were used to supply water for fire fighting in the steep, hilly region.

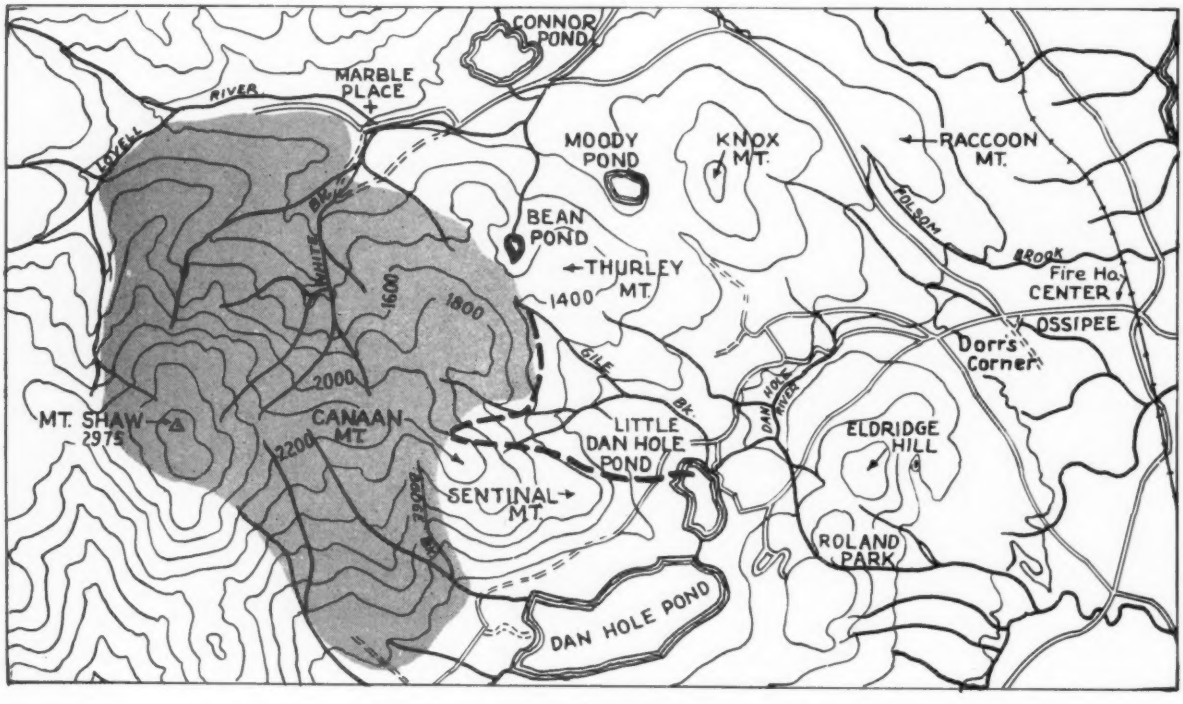
One of the water relay sites. Note canvas sleeves for insertion of intake and suction hose lines. Also note that tank is resting on a jagged branch without injury.

The fire was first sighted on Mt. Shaw on the morning of June 22 following a severe electrical storm. As the map on this page illustrates, the steep slopes in the surrounding region not only allowed fire to spread beyond control but also handicapped fire fighters from getting equipment and water to the involved area. Fire fighters from Moultonboro, Tuftonboro, and Ossippee responded to alarms and were supported by personnel from Battery B of the New Hampshire militia and the 3rd Reception Company from the Army camp at Fort Devens, Massachusetts. In addition many persons were mustered from surrounding communities. New Hampshire State laws require that all able-bodied men must respond to a call for such fire fighting or be subject to fine.

Richard B. Diehl, head of the Fire Control Office of the New Hampshire Forestry Department was in charge of the fire-fighting operations. Central headquarters was established in the Highway Garage in Center Ossippee.

In the initial stages of the fire Mr. Diehl requested a supply of 300-gallon canvas portable water tanks made by Harodikes Incorporated of North Dighton, Massachusetts. These tanks, designed especially for forestry duty, are light enough to be carried by one man and feature a closed top which helps to minimize clogging in hose lines because of debris. Because of

(*Please turn to page 42*)



Contour map with shaded portion representing involved area. Contour lines are at 200-ft. intervals. Dotted line from Little Dan Hole is general direction of one of the relays in which water was raised from about 800 feet to about 2970 feet.

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Fresno Passes Ordeal by Fire

by Gayle V. Coger, Chief Engineer
Department of Fire, Fresno, California

ON FRIDAY afternoon, July 10th, the fire defenses of the City of Fresno experienced their severest test due to a series of fires in thirteen of our major downtown buildings, mostly hotels and apartment houses. In addition we were called upon to check on many exaggerated and erroneous calls occurring between the hours of 1:45 P.M. and 8:00 A.M. the following morning. The sequence in which these fires and alarms were received is as follows:

1:45 P.M. Hughes Hotel, Tulare and Broadway
1:54 P.M. Adams Hotel, Kern and Broadway
1:55 P.M. Golden Hotel, Kern and Broadway
2:06 P.M. Gottschalks Department Store, Kern and Fulton
2:07 P.M. Californian Hotel, Van Ness and Kern
2:29 P.M. Sequoia Hotel, Tulare and Van Ness
2:40 P.M. Alta Apartments, Kern and M Sts.
3:27 P.M. Brix Apartments, 2311 Fresno St.
3:49 P.M. First Christian Church, Tuolumne and M Sts.
3:54 P.M. Mission Hotel, 1200 Blk. Broadway
3:55 P.M. Roslyn Hotel, 1200 Blk. Broadway
3:56 P.M. Art Gallery, 1200 Blk. Fulton
5:34 P.M. Bonner Packing Co., 2000 Blk. Parallel
6:32 P.M. Fresno Air Terminal, Hammer Field
8:33 P.M. Inyo and M St.
8:42 P.M. California and Channing

Three of these calls were for fires major in nature and required substantial fire fighting personnel and equipment over a sustained period of time. The first of the series of fires was at the Hughes Hotel at Tulare and Broadway. This was a large 4-story, brick-wooden joisted hotel, 66 years old. The building was oblong in shape and occupied about ¼ of a city block. A telephone call was received for the fire and also two alarm boxes were pulled simultaneously at 1:45 P.M. Engines 2, 3, and 1; Trucks 2 and 1; Water tank 1; and Chiefs 2 and 1 responded.

On arrival at the Hughes Hotel it was apparent from the nature of the structure and the progress the fire had made that the Fresno Fire Department would be very busy for several hours. Calls were immediately made for additional help, including off-duty firemen. Four additional engine companies and Truck 3 were called to the fire.

Calls were also placed with the North Central Fire District and Mid Valley Fire District, with which we have mutual aid agreements, requesting all available equipment for standby purposes in our stations should other fires occur. As the situation developed other calls were made to various cities within a 40 to 50-mile radius and in every case the equipment and personnel responded in amounts greater than we expected.

The first hour and a half at the Hughes fire we used the strategy of offense. During that time the fire was fought entirely with 2½-in. lines inside the building, hallway by hallway and room by room. At 3:27 P.M. we received a phone call that the Brix Apartments at Fresno and M Sts. was on fire. This was also a large 4-story, wood-joisted, oblong shaped structure of about 150 x 300 ft. A reserve pumper with off-duty firemen was dispatched. A few moments later the Assistant Chief informed me by radio that we had a major fire in the Brix Apartments, and that we had a life problem

United Press Photo
The first fire in the series of suspicious outbreaks on July 10 was this blaze in the 66-year-old Hughes Hotel.

and needed ladders, resuscitation equipment and masks. I immediately dispatched two truck companies from the Hughes Hotel to the Brix Apartments and six mutual aid engines were dispatched by telephone.

On receipt of the information regarding the fire at the Brix Apartments and the necessity for disbursing some equipment and personnel from the Hughes to the Brix, it became necessary to go on the defense at the Hughes. Heavy stream appliances had already been located in anticipation of this change in strategy and were very quickly put into operation. I cannot say too much for hose clamps which were used very freely in making this transition.

AT 3:30 P.M. I had all local radio stations called and asked them to announce over the radio a request by the Fire Department that they shut off all water in

A Fresno ladder truck spotting at Brix Apartment fire alarm for which was received when another large fire was in progress. Truck was detailed from previous fire. Note that it is practically stripped of ground ladders. This fire was largely fought by mutual aid assistance.

their vicinity. People were very cooperative and our water pressure began to increase immediately and rose steadily from an average of 29 lbs. to 40 lbs. in about 1½ hours. I checked this report for accuracy and found that the City of Fresno used approximately 79 million gallons of water on Wednesday and Thursday prior to the fire but only used 59 million gallons on the day of the fire. We had hundreds of calls the following day asking if it was all right to resume normal use of water. I am more than pleased with the action that we took in securing our water supply and feel that no chief should overlook taking similar action under similar circumstances.

At 3:49 P.M. we received a phone call that the First Christian Church was on fire. This is a large old brick church. The basement was fully involved. Six mutual aid pumpers responded. The fire was confined to the basement and the floor and walls immediately above.

We received from various communities and fire districts 31 pieces of equipment and a total of 133 men. The total pumping capacity was 15,020 gpm. This equipment began arriving in Fresno about 2:05 P.M. and continued arriving until 4:00 P.M. at which time we did not need any further assistance. Several cities including Bakersfield and Sacramento were standing by to send further aid if desired. All this equipment including our own did not suffer a single accident. However, some minor equipment was lost.

Later in the afternoon began the problem of getting companies back into service and relieving equipment and personnel of those communities which had so graciously furnished aid. We were able to use several trucks belonging to the public works department and volunteer help was put to work breaking and draining hose lines and retrieving fire equipment which was no longer needed. This equipment was removed to a central depot on the drill yard near our shop where minor repairs could be made when necessary. When pumping engines were no longer needed they were sent to the central depot, outfitted, and put into service. This procedure was satisfactory from a standpoint of time. We began to shut down some engines at both the Hughes and Brix fires about 6:00 P.M. By midnight only three pumpers were standing by at the fires. Return of mutual aid equipment began early in the evening and was finished by midnight.

Our communication system worked well and at no time was our Bureau of Fire Alarm out of touch with me or with any fire fighting equipment or personnel within the city. We used our radio and alarm system handling Fresno equipment. Mid Valley and North Central supplied us with receivers and transmitters for the movement of their equipment. The benefits derived from a chief's operator equipped with a walkie-talkie could not be over estimated. He was able to give me the answer to every question concerning additional fires.

In all about 39 organizations took active part in this emergency, including about 200 police officers augmented by 250 Legionnaires and auxiliary police, and 175 National Guard men. All places of assembly were shut down and emptied. Radio stations warned all persons to be on the lookout and not to allow persons not properly identified to enter hotels, or elevators in prominent buildings. All restrictions relative to assemblage and normal conduct of affairs were removed the following 8:00 A.M. Due to this action we had no signs of panic or hysteria on the part of the public.

There were no serious injuries to any personnel but approximately 25 firemen were overcome by smoke and heat exhaustion. The temperature was approximately 102° with a 12–15 mph northwest wind. The entire off-duty personnel (except those sick and on vacation) was held until the following noon.

Too much cannot be said for special appliances such as resuscitation equipment, masks, hose clamps, walkie-talkies, heavy stream appliances, etc. Every chief should check his supply of such equipment. The city has a contract with a private ambulance company which responded immediately and was able to remove firemen as necessary. The city physician with a staff of three doctors were at the scene all afternoon.

Equipment used on the two largest fires included:

Hughes fire —

Number of engines worked	7
Number of trucks worked	3
Number of 2½-in. lines	23
Number of 3-in. lines	4
Total footage, 2½-in. hose	12,200
Total footage, 3-in. hose	1,600
Engines pumped a total of 36 hours	
Number of deck pipes used	3
Number of multiversal nozzles used	4
Number of ladder pipes used	1
Ground ladders used	621 ft.
Number of on-duty men responding	71
Number of off-duty men responding	77
Total manpower	148
Amount of water used	1,875,180 gal.

Brix fire —

Number of engines responding	7
Number of trucks responding	3
Number of 2½-in. lines	12
Total footage, 2½-in. hose	7,600
Ground ladders used	196 ft.
Multiversal nozzles used	1
Tarpaulines used	42
(everything on 2nd and 3rd floors completely protected)	
Number of firemen responding	73
Firemen detailed from Hughes fire	12
Total manpower	85
Amount of water used	562,600 gal.

North Carolina Pump School at Charlotte

CHARLES L. BURKETT, Chairman and Conductor of the North Carolina Fire College and Pump School, has announced that the Pump School will be held in Charlotte September 28–30. This conforms with the action taken last February by the Executive Committee of the State Firemen's Association in separating the Pump School from the Annual Fire College, in order to permit a greater number of students to receive more comprehensive training in pump operation. The course, as authorized by the Executive Committee of the NCSFA will consist of three years of instruction. Credit cards will be issued to students completing the first two years and Pump School diplomas will be issued after three years. Participation in pump classes held as part of the Annual Fire College will not apply towards the Pump School diploma because credit has already been given toward the Fire College diploma.

Don't tie up your 1953 Department with a 1920 Central Station
A lot of things have happened in the last 30 to 30 years —
a call to Gamewell. We
ing fire defenses
This is YOUR Community
1943
1953
During the past 10 to
increased and replacement
properties have skyrocketed.
story, yet how much time has been spent to see
that fire defense have kept pace with commu-
nity growth in other directions?
Check these points for a quick analysis of
the adequacy of your 1953 fire defense system —
Your population has increased _% in the past 10 years.
Your number of buildings has increased —%.
Your fire alarm box system increased _%.
If your answers don't seem to "fit together,"
it's time to survey your community, set up
plans for a realistic 1953-1963 fire alarm box
system. Gamewell can make such a survey for
you, and it will cost you nothing unless and
until you buy materials or services from us.
Write us about a survey of your needs for the present and the future.
THE GAMEWELL COMPANY
A Big City Fire Alarm Box System for the Smaller Community —at a cost within reason
For the smaller community—
POSITIVE, INSTANT CONTACT with the
FIRE
32
Gives you positive, instant communication with the FIRE DEPARTMENT
FIRE CHIEF · VOLUNTEERS
RESCUE SERVICE
— announcing the location of the fire when the fire alarm box is pulled.
Your community can now have all the advantages of a big city fire alarm box system. In most cases the installation will give extra advantage, frequently contributing to a reduction in insurance premiums. As the community expands, your fire alarm box system need not become obsolete. It can be extended on a circuit-by-circuit basis, to avoid a heavy investment in any one year.
Remember that every conflagration starts as a small fire. Keep small fires small — the fire alarm box provides instant communication for automatic organization of your fire defense at the source of the fire.
THE GAMEWELL COMPANY
GAMEWELL
THE BOX IS POSITIVE
Reduces Human Error
Provide your community—your property owners and your children — with all of the advantages of a big city fire alarm system.
At a cost well within reason, you can have a municipal fire alarm box system that will immediately announce the location of a fire.
Best of all, the smaller community can now get the basic fire alarm protection it needs, and extend the system circuit-by-circuit.
Keep small fires from becoming big fires — with an adequate fire alarm box system.

How Many Reasons

DO YOU NEED

for an adequate Fire Alarm System?

1 *Box additions* have not kept pace with community expansion.

2 *Central station* equipment installed years ago is not adequate for today's Fire Alarm System.

3 *Other community requests* have continually cut out or reduced the budget for the municipally-owned Fire Alarm system.

4 *Communications* to key departments and personnel are slower and less accurate than required.

To accurately assess the value of a municipally-owned Fire Alarm System under today's economic conditions, consult us on making a survey.

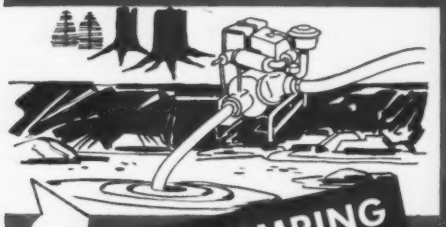
THE GAMEWELL COMPANY
NEWTON UPPER FALLS 64, MASS.

GAMEWELL®

THE BOX IS POSITIVE
Reduces Human Error

Fight Fires Faster!

with the DUAL FIRE FIGHTER

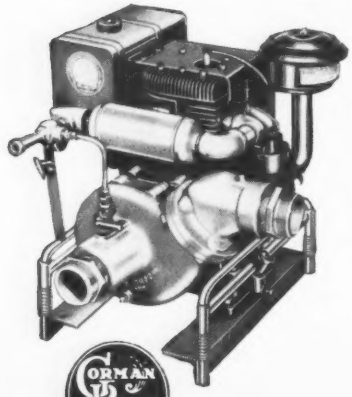


DIRECT PUMPING

AS A BOOSTER

Use the Dual Fire Fighter direct when truck pumper is unavailable.

Prevents costly damage to valuable equipment . . . extends your pumper truck range as much as 300 feet . . . reaches otherwise inaccessible water sources.



When fire strikes — prompt, sure action is an urgent necessity, and water is often inaccessible to the truck pumper because of trees, fences or other obstacles.

Two men carry the 162-pound Gorman-Rupp Dual Fire Fighter. Fighting a fire directly, or filling a vital need as a booster pump, the Gorman-Rupp Dual Fire Fighter starts throwing water in less than one minute.

Write for Bulletin No. 9-FD-11

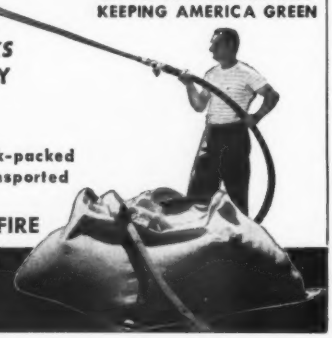
GORMAN-RUPP PUMPS

THE GORMAN-RUPP COMPANY
MANSFIELD, OHIO

WATER when and where you want it!

with HAREDIKES
Portable Canvas Water Tanks
THE ECONOMICAL AND EFFICIENT WAY TO CARRY AND STORE WATER.

ON THE JOB - ON THE SPOT
KEEPING AMERICA GREEN



EXCLUSIVE FEATURES
- Self Supporting
- Easily Back-packed
- Ideal for Relay Pumping
- Easily Transported

Available in 150 & 300 gallon sizes

A WATER SUPPLY AT THE SCENE OF THE FIRE

Write TODAY for Full Information and Price List
HARODIKES INCORPORATED
NORTH DIGHTON, MASSACHUSETTS

Saginaw, Michigan, Inspections

(*Continued from page 21*)

10 minutes to do the job. In larger dwellings and multiple dwellings it takes more time of course.

On each pumper, we place a sign that says *Saginaw Fire Department Home Inspection*. That answers the many questions we receive from children and adults alike when they see fire apparatus parked at the curb in their block. There is a humorous angle to this also. Little Junior finds out you are working his street and beats it home in a hurry to tell mom you are coming and by the time you get there, Mom is coming out of the basement with boxes of rubbish, etc. I ask you, does this eliminate fire hazards?

There is a serious side to this inspection work, nevertheless, and extreme caution against accidents must be practiced continually. One week after our inspection started, one of our 200-pound firemen went through a kitchen ceiling with a No. 12 shoe, while going into an attic. We were lucky in this case that the home was owned by a local insurance agent who had the repairs made through the courtesy of the local association of insurance agents.

In the winter months our men check all the report forms and pick out those with the serious fire hazards where recommendations to abate the hazards were given, and write a follow-up letter urging the home owner to make the changes if he has not already done so. (See letter on page 21.) In many cases we get the letter back with a written statement that the matter was taken care of on a certain date. Some letters came back to us from as far away as California.

The net result of the first year's inspection was a request from local electrical contractors, "for heaven's sake lay off for awhile." They were so swamped with work they had trouble handling it.

I could tell much more about all our experiences, but I will say that we firmly believe that we are reducing fire hazards. We have proof that fewer homes have had fires where we have inspected and found basic hazards that perhaps are in evidence in most every home. However, home fires will continue as long as human beings smoke and are careless with smoking materials.

The little cigarette stub has caused many tragedies that perhaps fire department inspection programs will not eliminate. That is a matter of education in another field. Our program is going to continue until every dwelling possible has been inspected. This will take several years. We know we can eliminate certain hazards. We are performing a service for the people that they never had before. We are selling the fire department to the people. We are making more friends every day. The average housewife walks around fire hazards all day and doesn't know they exist. We point them out to her and urge her to have them eliminated. A great many do.

When we leave her house, we give her a copy of the report, also an illustrated fire prevention pamphlet which points out 60 ways to prevent fire in the home. We feel satisfied that at last we are doing something for fire prevention on a big scale.

Ohio Adopts Gas Mask Law

ACCORDING to State Fire Marshal Charles R. Scott, the so-called "Gas Mask Bill" Amended House Bill 337 of the 100th Ohio General Assembly was signed and approved by Gov. Frank J. Lausche on July 7 and becomes effective on October 6, 1953.

The bill amends section 505–48 of the Revised Code of Ohio to read as follows:

"(A) 'Gas mask' means any self contained oxygen breathing apparatus using oxygen or air in suitable containers that enable their wearers to live in atmosphere containing less than sixteen per cent oxygen and poisonous gases in excess of two per cent by volume and having been approved by the United States Bureau of Mines for use in irrespirable atmosphere.

"(B) Every political subdivision which operates a fire department shall provide at least two gas masks for each fire station and shall further provide that the chief of the fire department give adequate instructions to each member of the fire department in the use of such gas masks."

Thus Ohio joins Michigan and Massachusetts in requiring self-contained breathing equipment for its fire fighters.

SCOTT BACK-PAK

Fight Fires Quickly, Safely -at the source!

with

Scott Air-Pak

Scott Air-Paks are reducing fire losses by permitting action at the fire's source — quickly, and without fear of unknown smoke or fume hazards. In less than a minute an Air-Pak is on the wearer "ready to go", with a supply of cool, confidence-inspiring *air* (not oxygen) instantly available.

Scott Air-Paks can be put in operation in temperatures as low as 20° below zero. They can't be "outbreathed" — provide an ample supply of air regardless of age or physical condition of wearer. Fine for training purposes; easy to use and learn how to use — Air provides inexpensive training. Standard in thousands of fire departments and industrial plants.

Help *your* department build an enviable record of life and property conservation — with Scott Air-Pak!

Scott Senior Sling-Pak

Many in use by cities and towns with a number of "cellar-less" single story buildings; also used to supplement Scott Back-Paks (above) for short-duration periods, and for chiefs to make short inspection trips into smoke or fume-laden buildings.

Write for Booklet!

Get the full story of Scott Air-Pak equipment — also arrangements for FREE DEMONSTRATION. Write for *Bulletin* 510 and name of nearest distributor — today!

ESTABLISHED IN 1932 Scott FOR SAFETY - FOR SERVICE

SAFETY EQUIPMENT DIVISION

SCOTT AVIATION CORP.

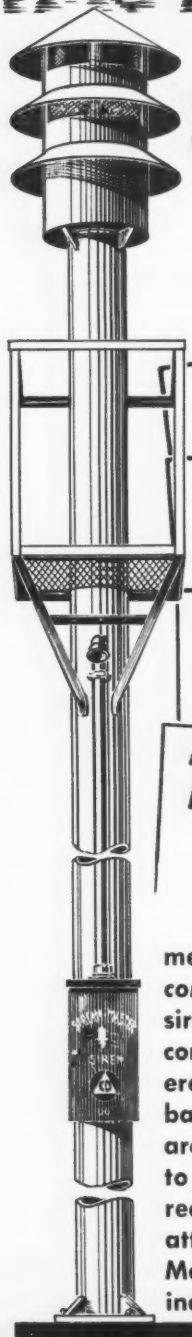
236 ERIE STREET LANCASTER, N. Y.

Canada: Safety Supply Co., Toronto — Branches in principal cities

Export: Southern Oxygen Co., 157 Chambers Street, New York 7, N. Y.

Please mention FIREMEN when writing to Advertisers

FAST-ACTION
when you specify
SCREAM-MASTER
SIRENS



A typical example;
County of Alameda, California,
Attack Warning System

BIDS OPENED
MAY 28, 1953

SCREAM-MASTER
BID ACCEPTED
IIINE 3, 1953

ATTACK WARNING SYSTEM
INSTALLATION STARTED
JULY 6, 1953

ATTACK WARNING SYSTEM
INSTALLATION COMPLETED
JULY 16, 1953

This timetable could *only* be met because Scream-Master is a *complete* unit... consisting of the siren, motor, shroud, tower, wiring, conduit, electrical controls, delivered and erected on a concrete base. • Scream-Master Engineers are available, without obligation, to survey your city and make recommendations to cover your attack warning needs. (Scream-Master units are also available as individual firehouse sirens.)

SCREAM-MASTER
ATTACK WARNING
SIRENS
MANUFACTURED BY ROBT. J. ZIEVERS INC.
2282 LA VERNE RD. • LA VERNE, CALIFORNIA

Omaha's Fire Department Rescue Squads

(*Continued from page 17*)

infants into the world. This doesn't mean that the squadmen are poaching on medicos' territory. The record also shows that the squads dashed out 595 other times on similar calls, and got the mothers to the hospital in time.

Squadmen even have been called upon to perform baptismal services for infants whose death had occurred within four hours of their arrival on an emergency call.

People are constantly swallowing things they shouldn't, and doctors don't get all the calls for help. Marbles and parts that come loose from rattles are other toys most often swallowed by children. Squadmen have become adept at removing fish bones from the throats of adults.

One of the handiest gadgets in the rescue squad car is a ring cutter. Under ordinary circumstances it cuts through a ring on a finger in four seconds. Also, the squads are equipped to cut through the steel floor of an elevator when a foot or leg gets caught and, incidentally, they have a jack that lifts street car wheels.

The squadmen have noticed how differently people react under stress. "A boy got his hand caught in a washing machine," related one of the Squad's Captains. "We had to take part of the washer apart. The mother was so calm we wondered if she was really the boy's mother. But as soon the youngster was safe, the mother, who was standing on the stairs, fainted and toppled to the floor. When she regained consciousness she explained that this had happened before. As a former Army nurse she had steeled herself to take emergencies calmly, but when the stress was finished she was ready to keel over."

Beside the emergency calls, the rescue group has assumed an important role in the fight against polio. It owns six boiler type iron lungs and stores lungs owned by ten outstate cities. At one time last summer, the Central Fire Station was the dispatching point for 38 iron lungs, some of which came from various parts of the country. They are moved where needed on the request of the Nebraska office of the National Foundation for Infantile Paralysis.

The department also has eight chest type respirators, one baby iron lung and several baby incubators. These have been loaned on occasion to local hospitals or taken to homes where a nurse is in charge of the patient.

Omaha Fire Rescue Squad units were, on April 22, 1953, presented a certificate of merit by W. J. Altenburg, New York, regional director of the National Foundation for Infantile Paralysis. The certificate was "in recognition of outstanding services rendered on behalf of men, women and children stricken by polio." It was the first award made in Nebraska and one of three approved by the National Foundation office.

The three units from June 1, 1952 through December 31 furnished 48 chest respirators, 84 iron lungs and five children's respirators.

Some of the squad's equipment is designed for use in case a disaster hits Omaha or the vicinity. That is why the trucks carry a kit of surgical tools, selected for them by the county medical group. Squad cars then would be used as a mobile hospital base. Each group also carries an oxygen tent and supplies of blood plasma.

Metcalf UNIFORM FABRICS

Standard fabrics for over eighty years

UNIFORM CLOTH
METCALF BROS. & CO., INC.

SPECIFY

386

STANDARD SERGES
FROM 12 TO 18 OZ.

★

STANDARD TROPICALS
FOR SHIRTS
All in Premier 386 Quality

★

OVERCOATINGS
In 20 and 30 oz. weights

★

ELASTIQUES

★

Metcalf Fabrics are used by Fire departments of leading cities

Sample Brochure Upon Request

METCALF BROS. & CO., INC.
45 EAST 17th STREET, NEW YORK CITY

F O R U N I F O R M S A T I S F A C T I O N

CAIRNS

PERSONAL

EQUIPMENT

FOR

FIREMEN

Think of the many advantages of buying ALL your personal equipment, from head to foot, from one dependable source — from a firm able and ready to assume responsibility for the quality of EVERY item, and to stand back of it with a reputation gained in serving firemen for more than a hundred years. . . . Here is a partial list of the equipment we can supply, promptly. Many other items are described in our Catalog, sent on request.

TURNOUT SUITS
RUBBER COATS
RUBBER BOOTS
RUBBER-LINED MITTENS
ASBESTOS GLOVES
SAFETY BELTS
TRAFFIC OFFICERS' BELTS
CAPS
BADGES

HELMETS

LEATHER
ALUMINUM
FLINT-FLEX

REGULATION
and
OTHER STYLES

AND, FOR THE DEPARTMENT,

SECRETARY'S RECORD BOOKS
LOOSE-LEAF FIRE RECORD BOOKS
SECRETARY'S BLANK FORMS

Write for Catalog 340

CAIRNS & BRO., Inc. - Allwood, Clifton, N. J.

SINCE 1836

Portland Goes Lo

FOR the past several years the Portland, Oregon Fire Department headed by Chief Edward Grenfell has put increasing stress upon home inspections. As part of the campaign suggested by the International Association of Fire Chiefs, Portland fire fighters have inspected thousands of homes during each year and the resultant lessening of fire losses has proved the effectiveness of the campaign. For the third consecutive year, members of the Portland Fire Department began another program of home inspections on June 1st. While on duty in uniform, they will systematically visit 195,000 homes in Portland and through inspections and conversations with the home owner, attempt to eliminate the fire hazards.

Chief Grenfell distributes to all members of the department a number of daily summary reports, inspection sheets, and explanatory forms so that all fire fighters will follow the same inspection procedures. Included in these bulletins is a special sheet devoted to inspection of electric wiring and fuse boxes in the home.

In addition to unifying the inspection procedures and the type of information given to the fire fighters, the Portland Fire Department also prepares a number of press releases for distribution to newspapers in the city. These briefly quote the national fire loss statistics and explain what the Portland Fire Department is attempting to do by its inspection program. For further emphasis a number of spot announcements are given to radio stations in and around Portland. These stress the importance of the home inspection campaign, and describe the progress of the program.

Two sample spot announcements used by Chief Grenfell's department are:

"Starting Monday morning, June 1, the Portland Fire Department will begin its third annual house-to-house campaign. The fire department doesn't ordinarily make predictions, but here is one prediction they can make, and be sure it will come true. This year there will be approximately 1,900 fires involving homes in Portland. No one can afford to have a fire. Will your

Goes Looking for Fires

home be next? Invite the firemen into your home. Help them to help you. Stop fires. Save property and lives."

"Chief Edward Grenfell of the Portland Fire Department had this to say today of the current house-to-house campaign to make homes safer from fire. 'If the people of Portland continue to give us, the fire department, the cooperation that they have the past few days we will, I am sure, improve on the record which now shows a reduction of 12% in the number of home fire alarms where fire losses actually occurred'."

●

Frank P. Kelly Fire Chief at San Francisco

CHIEF Frank P. Kelly, 65, chief of the division of fire prevention and investigation was advanced to Chief of the San Francisco Fire Department on the retirement of Chief Edward P. Walsh on August 20th. Chief Kelly, a member of the department since 1909, became fire marshal in 1926 and was later made chief of the fire prevention division. Assistant Chief Carl Kruger, of Division 1, was appointed acting chief of the fire prevention division until a civil service examination can be held.

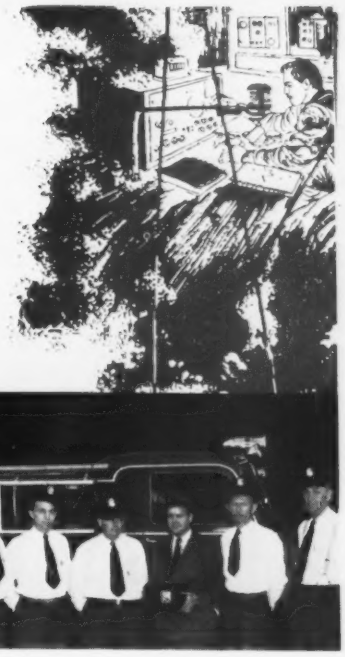
Hoosick Falls Trophy

CHIEF John J. Shea of the Hoosick Falls, New York, Fire Department recently was awarded a trophy upon completion of his fifty years as a fire fighter. He has been Chief of the department for the past 36 years. More than 100 members of the fire department attended the ceremony, representing the Miller Hose Company, the J. D. Howe Hose Company, the Fourth Ward Hose Company, the Seth Parsons Steamer Company, and Hook & Ladder Company.

Had we but world enough and time

no one would need monitors but speed in communication is economy and often a life and death matter.

MODEL PR9 FOR 152-174 MC BAND



Chief McMurtry and members of Sheridan, Indiana, Volunteer Fire Department with John Oakley Vice-President of Midwest Fire and Safety Equipment Co. who supervised monitoradio installation.

If you have a police, fire, forestry, pipeline, civil defense, taxi or any other vital 2-way radio system, here is how monitors pay off.

Says Chief McMurtry—of the Sheridan, Indiana, Volunteer Fire Department:

"In the past, the largest obstacles for our Volunteer Fire Department to overcome has been the method of determining the exact location of the fire and beating the traffic there. Speed of course is essential for the efficient operation of any Fire Department. Now, with the Town Police Radio Base Station located in the Department and with the use of 18 PR9 Receivers in the homes of our members we not only learn of the fire before the Town Siren is blown, but we in many cases arrive at the fire before the equipment.... *We do not hesitate to recommend this Receiver to any Department.*"

RADIO APPARATUS CORPORATION
55 NORTH NEW JERSEY STREET
INDIANAPOLIS 4, IND., PHONE: ATLANTIC 1624

MONITORADIO

CIVIL DEFENSE PUMPER RECENTLY DELIVERED TO ROYAL OAK, MICHIGAN

"Built by Howe"

Howe Fire Apparatus has been built to meet the demands of fire fighters since 1872.

HOWE FIRE APPARATUS is constructed today, under the supervision of the fourth generation of the Howe family, to meet the high standards of workmanship and efficiency characteristic of all Howe fire equipment. Indicative of Howe achievements is the record in 1952 of building a high percentage of all pumpers produced in the United States. Howe's present record of building fire trucks and crash trucks on defense orders is further testimony to the value and prestige of Howe Fire Apparatus.

Howe builds their apparatus on any commercial chassis and their custom-built Howe Defender special fire engine chassis. You can have a choice of several pumps: the Piston Pump, the Centrifugal Pump (1, 2 or 3 stage), the Rotary Pump, to give you pumping capacity of 500, 600, 750, 1000, 1200 or 1500 GPM.

Furthermore, Howe was the first manufacturer to combine a volume pump and a high-pressure fog power take-off pump so widely used now in fire fighting.

There are many other outstanding features which you should know about Howe Apparatus. Have a Howe representative give you full information on the type of equipment you need. **WRITE FOR FREE** literature and a Howe catalog. *Look to Howe first for the latest in fire-fighting apparatus.* Address the Howe Fire Apparatus Co., Dept. FM1, 1402 W. 22nd St., Anderson, Ind.

HOWE

FIRE APPARATUS

Dependable since 1872

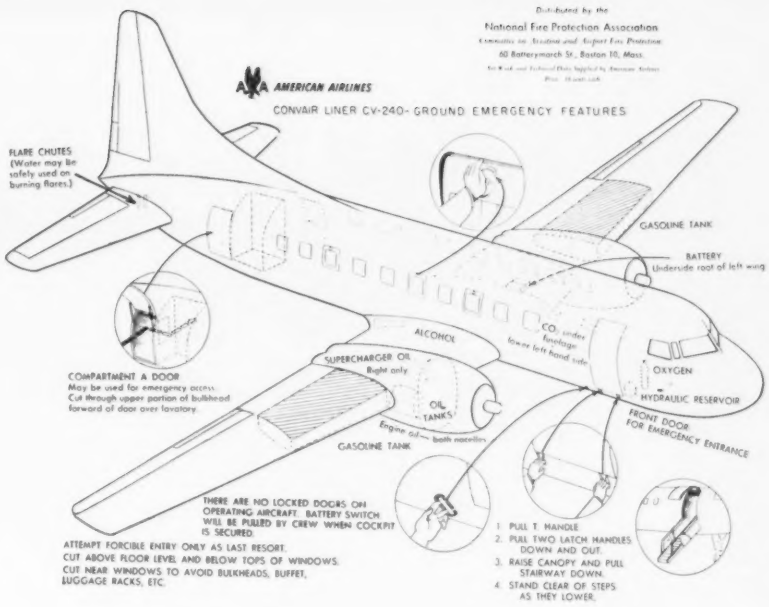
Member of FAM (Fire Apparatus Manufacturers Association)

Charts On Aircraft Emergency Features

IN ORDER that fire fighters may better understand emergency features of operating aircraft, the NFPA Committee on Aviation and Airport Fire Protection has made available some useful charts which simplify identification. The first of these, illustrated at right, is now ready for distribution. Copies may be obtained for fifteen cents each from the NFPA Executive Office.

It shows the ground emergency features of the American Airlines Convair Airliner CV-240. Artwork and technical data for this illustration were furnished by the American Airlines. The chart measures 8½ x 11 in. in size and is printed in red and black.

From time to time FIREMEN will publish illustrations of other types of aircraft as new charts become available. Each type of plane has characteristics of exit and location of equipment which are of utmost importance to fire fighters who may encounter rescue or crash fire fighting problems in burning aircraft. (See story on page 24.)


Distributed by the
National Fire Protection Association
60 Batterymarch St., Boston 10, Mass.
AMERICAN AIRLINES
CONVAIR LINER CV-240- GROUND EMERGENCY FEATURES
FLARE CHUTES
(Water may be safely used on burning flares.)
GASOLINE TANK
BATTERY
Underside root of left wing
ALCOHOL
SUPERCHARGER OIL
Right only
CO2 under fuselage lower left hand side
OXYGEN
HYDRAULIC RESERVOIR
COMPARTMENT A DOOR
May be used for emergency access.
Cut through upper portion of bulkhead forward of door over lavatory.
OIL TANKS
Engine oil — both nacelles
GASOLINE TANK
FRONT DOOR FOR EMERGENCY ENTRANCE
THERE ARE NO LOCKED DOORS ON OPERATING AIRCRAFT. BATTERY SWITCH WILL BE PULLED BY CREW WHEN COCKPIT IS SECURED.
ATTEMPT FORCIBLE ENTRY ONLY AS LAST RESORT.
CUT ABOVE FLOOR LEVEL AND BELOW TOPS OF WINDOWS.
CUT NEAR WINDOWS TO AVOID BULKHEADS, BUFFET, LUGGAGE RACKS, ETC.
1. PULL T HANDLE
2. PULL TWO LATCH HANDLES DOWN AND OUT.
3. RAISE CANOPY AND PULL STAIRWAY DOWN.
4. STAND CLEAR OF STEPS AS THEY LOWER.

For developing training programs for crash fire fighting, fire departments stationed on or near airports can find much helpful information in two NFPA standards. NFPA No. 402 (35 cents) outlines standard operating procedures for aircraft rescue and fire fighting, while NFPA No. 403 (50 cents) suggests aircraft rescue and fire fighting equipment for airports. Both may be obtained from the NFPA Executive Office, 60 Batterymarch Street, Boston 10, Massachusetts.

Fire Department Officers and Members

INDIVIDUAL CAR SIGNS

Firemen's three dimensional silhouette style identification plates as ILLUSTRATED, especially made for outdoor use. White base plastic-lettering FIRE ENGINE RED. Also in RED BASE PLASTIC, same grade, finished in WHITE.

As ILLUSTRATED with wording under Fire Dept.:

Chief, Assistant Chief, Captain, Lieutenant, Volunteer, Member, Driver, Engineer, Police and Aux. Member, the latter for civilian defense fireman.

Priced at 63c single $1.25 in pairs

Specially made with name of your department, city, township, club, etc. Minimum order 50 plates @ 88c each; 100 @ $62.50. SPECIFY lettering with order, limit top line to ten characters ROMAN type (as shown in above design) bottom line to 12 and 13 characters ROMAN type ⅝ inch high, or 18 CONDENSED type letters ⅝ inch in height.

Officers named in special orders are furnished from the above named standard stock plates, or a SPECIAL CUT inverted lettering, limit 10 to 12 ROMAN or CONDENSED letters.

In pairs $4.25 — Single $2.25

These plates may be cemented onto a flat level surface, fastened back of various manufacturers emblems, bolted onto license plates, used on sun visors — size 9½ x 2 inches.

E. B. LANE, *Distributor*

32 Greenwood Avenue TOLEDO 5, OHIO

Eliminate Fire Hazard

at Heavy Oil Tank Installations with

VENTALARM®

WHISTLING TANK FILL SIGNAL
(Remote Type)

If hooked up to wrong fill pipe — **no** whistle
If plug out of tank top — **no** whistle
If tank already full — **no** whistle

"Fill Only While the Whistle Blows"

The fool-proof **positive** guard against fuel spillage.

Over 4,000,000 VENTALARM Signals now in operation

Home Fuel Oil Basement and Underground Tanks
Automotive and Boat Gas Tanks
Diesel Locomotive Tanks
Industrial Heavy Oil Underground Tanks

Approved and recommended by leading fire and safety authorities. Many models listed as standard by Underwriters' Laboratories.

For full information, write to

SCULLY SIGNAL COMPANY
88 First Street, Cambridge 41, Mass.
Canadian Licensee: EMPIRE BRASS MFG. CO., LTD., London, Ont.

THE BOOTS THAT HELP FIGHT FIRES

—and stand up to this tough job *one third longer* than ordinary boots because they're made of an extremely tough rubber compound.

Designed for firemen exclusively with many special features: Thick-cleated, white, wrap-around outsole for maximum foot protection and visibility; built-in maplewood shank for comfort on ladders; stay-open reinforced collar.

CHECK OFF THESE MANY REASONS WHY U. S. FIREFIGHTER BOOTS GIVE YOU UNBEATABLE VALUE AND PROTECTION

- Thick-cleated outsoles for perfect grip.
- Built-in sturdy maplewood shank for ladder climbing.
- High skirt that doubles down but will not drag.
- Reinforced wide leg opening for fast, easy on and off.
- Wool felt lining with air-cushion insole.
- Smooth, snag-resistant 8 oz. duck construction.
- Firmly anchored, large pull-on loops.

U. S. Royal Firefighter Coats

100% waterproof coats take a drenching, yet keep a man dry. Sturdy black rubber with warm, napped maroon-colored linings. Roomy, 2-piece body—raglan shoulders for action; fly-front in instant snap-and-dee fasteners; large patch pockets. All seams are cemented, outside gum-strapped; entire coat is then vulcanized.

US ROYAL TEMPERED RUBBER

US UNITED STATES RUBBER COMPANY

ROCKEFELLER CENTER • NEW YORK

Boosting Water to a 2900-ft. Elevation

(*Continued from page 28*)

the difficult terrain and necessity for lengthy relays the tanks proved useful as water reservoirs.

Interesting relays were developed, using the tanks in combination with portable pumps. As the map indicates, one relay was established in the Dan Hole Pond sector. With seven portable pumps and six of the canvas tanks water was supplied through 6400 feet of hose line. At the lowest level of 816 feet water was pumped into the first tank which was 1600 feet from the water source. Then, through the relay operation, water was finally supplied at an elevation of 2970 feet.

Membership Report

THIS month's issue of FIREMEN is being distributed to every fire department in the United States and Canada. Purpose of such distribution is to emphasize the need for effective campaigns during Fire Prevention Week and to encourage non-member fire departments to participate in the activities and benefits of NFPA membership.

If your fire department has not as yet obtained sufficient materials for Fire Prevention Week be certain to take advantage of the convenient order blank on the back cover. And, if your department does not have NFPA membership, why not join the Association and obtain FIREMEN for all of your fire fighters?

NFPA Welcomes:

The following fire chiefs and fire departments. Current NFPA Fire Department Membership is 2,093 fire departments and 25,365 men.

California: Marysville Fire Department, Marysville.

Connecticut: Chief C. E. Kirchoff; Quaker Hill Fire Company, Incorporated, Waterford.

Indiana: Chief R. O. Nicholson, Elberfeld Volunteer Fire Department, Elberfeld.

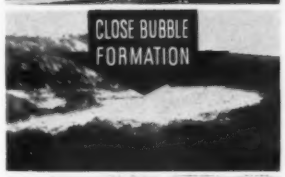
Michigan: Summit Township Fire Department, Jackson.

Nebraska: Chief Fred W. Walker, McCook Fire Department, McCook.

Virginia: Chief P. L. Burnett, Sr., Henrico County Fire Department, Richmond.

Wisconsin: Chief L. James Stull, Jr., Trempealeau Volunteer Fire Department, Trempealeau.

Kills Oil & Petrol Fires with SPEED & CERTAINTY



★ Nicerol is supplied in heavy gauge steel drums designed for quick release and clean pouring.

★ Nicerol can be used in any type of mechanical foam or air foam apparatus. In this case a base injection type in-line inductor is being operated.

★ The secret of Nicerol effectiveness lies in the small bubble formation. It creates a tough, efficient blanket. 3 gallons of Nicerol and 100 gallons of water will produce over 1,100 Imperial gallons of foam.

★ The above gasoline and oil blaze was extinguished in a matter of seconds by a normal mix of Nicerol Foam Compound.

Meet the hazard of fire with Nicerol, the foam compound that kills any oil or gasoline fire quickly and absolutely. Nicerol is a concentrate, producing a heavy type foam of closely-knit small bubbles which form a tough, vapour-tight blanket over the surface of burning oil or gasoline. It is characteristic of Nicerol Foam that it flows with the fire and is highly resistant to flash-back or re-ignition. It can be used successfully in any type of mechanical foam or air-foam apparatus — is equally effective with salt water or fresh and can be stored for years without deterioration.

The Royal Navy and the Royal Air Force use it and so do Oil Companies, Fire Equipment Manufacturers, Civil Air Lines, several Commonwealth and Foreign Government departments, and Fire Brigades throughout the world. What better recommendation?

Manufacturers: **NICEROL LIMITED**
GREAT BRICK KILN STREET
WOLVERHAMPTON, ENGLAND

Representative for U.S.A.
GEORGE T. REYNOLDS
P. O. BOX 395 **THORNWOOD** **NEW YORK**
Telephone: PLeasantville 2-1853 R

SIREN FIREMAN'S BOOT

20 KEY FEATURES--YOUR GUARANTEE OF FOOT COMFORT, SAFETY AND LONG WEAR!

TOP NOTCH SIREN BEACON FALLS CONN.

3" HIGHER ST. KING LENGTH FOR QUICK ADJUSTMENT AND MORE PROTECTION

OUTSIDE, EXTRA RUBBER REINFORCEMENT ABOVE KNEE

ENTIRE SKIRT NET LINED FOR AMPLE STRETCH

STURDY INSIDE PULL-ON LOOPS AT KNEE

WARM WOOL LINING

REINFORCED KNEE PATCH OF CREPE RUBBER

VULCANIZED BY AMMONIA CURE--PATENTED EXCLUSIVE FEATURE

SIX PLIES OF FABRIC AND RUBBER THROUGHOUT LEG

SPECIAL STIFFENING COLLAR FOR EASY FITTING

FABRIC AND RUBBER IS "SHINGLED" TO DISTRIBUTE STRAIN

FOURTEEN PLIES OF FABRIC AND RUBBER WITH SPECIAL FRONT STAY

MADE OVER SPECIAL LAST, FULLER THROUGH THE ANKLE AND INSTEP

NINE PLIES OF FABRIC AND RUBBER AT THE VAMP

REINFORCING TOE CAP PROTECTION

EXTRA THICK SUPER-QUALITY SOLES

FELT COVERED CUSHION INSOLE

REINFORCED LADDER SHANK

SPECIAL HIP WITH HIGH FRONT SKIRT, ALSO IN SHORT HEIGHT

FULL SIZE HEEL

THICK SIDE GUARDS AT SHANK-PROTECTION AGAINST NAIL OR SPLINTER PUNCTURING

BEACON FALLS RUBBER FOOTWEAR
BEACON FALLS, CONNECTICUT

Demonstrating Effec... Supply Lines and...

A 600-ft. line of 2½-in. hose supplied pumper discharging through a monitor nozzle with 1½-in. tip. The supply line began to collapse before an effective stream could be developed.

A 600-ft. line of 3-in. hose was substituted as a source of supply to the pumper which was then able to deliver a fair 1½-in. stream through the monitor.

A 1-in. tip on the monitor permitted the pumper to develop this stream with water supplied by 600 ft. of 2½-in. hose.

ting Effects of Different ines and Nozzle Tips

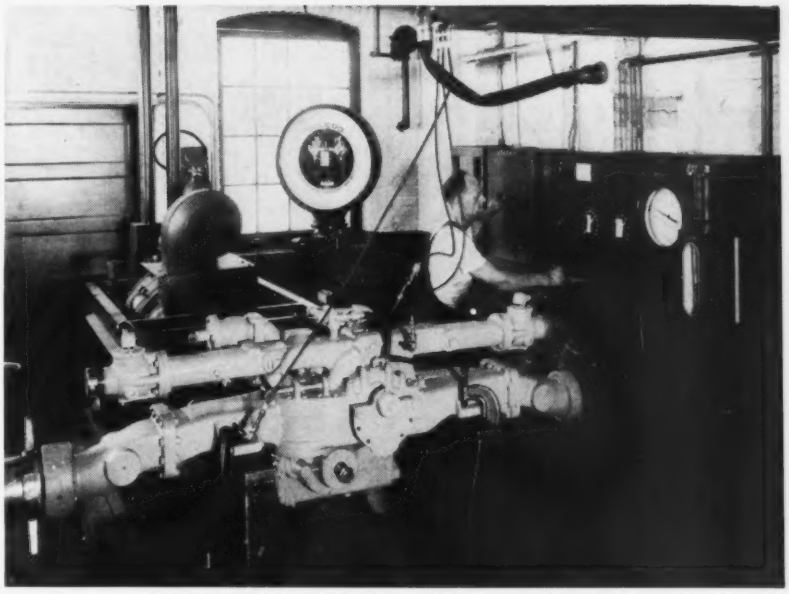
AS a training exercise the Salt Lake City, Utah, Fire Department, operated a multiversal nozzle with a 1½-in. tip with the pumper first supplied through 600 ft. of 2½-in. hose from a hydrant, and then with 600 ft. of 3-in. hose from the same hydrant. The improved flow with the 3-in. supply line is obvious in the second photograph at left. Then a 1-in. nozzle tip was placed on the monitor and the pumper was again supplied by the 600 ft. of 2½-in. hose. While the flow remains about the same as in photo at top, the pumper was able to develop sufficient pressure for an effective stream as shown in the bottom picture.

Fire Prevention Week Contest

ALL fire departments and industrial concerns in the United States and Canada, and U. S. Government facilities are invited to submit entries to the annual Fire Prevention Week Contest sponsored by the NFPA Fire Prevention and Clean-Up Campaign Committee. The Contest, which closes November 30, 1953, gives every participant opportunity to gain international recognition for its achievements during Fire Prevention Week, October 4–10, 1953.

Entry blanks have been mailed to all NFPA fire departments. However, if a non-member fire department desires to participate, entry blanks and further information may be obtained by writing to Mr. Robert W. Schuette, NFPA Public Relations Manager, 60 Batterymarch Street, Boston 10, Massachusetts.

In addition to the regular awards this year a special award will be given for the best slogan used by a fire department to highlight its Fire Prevention Week Campaign. This year's slogan "Fire Feeds on Careless Deeds" which will be used on all NFPA Fire Prevention Week materials, was the slogan featured last year by Louisville, Kentucky, whose entry in the 1952 Contest won second place award in cities of 250,000 to 500,000 population. (See FIREMEN for February, 1953.)



CA-5 GPM fire pump undergoing final test on one of WATEROUS' 3 test stands

Proof of the Pump Is the Final Test

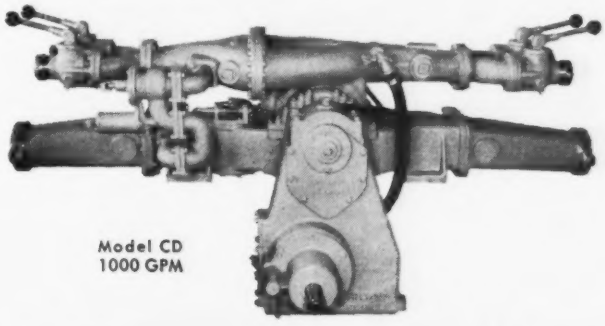
● Each WATEROUS pump is subjected to a rigorous test before leaving the factory.

In a modern test stand like the one shown above, pressure and efficiency are checked under contract requirements for capacity.

Throughout the test, performance is observed closely. Several different instruments tell exactly what is happening inside the pump, and give the testing engineer continuous readings of speed, capacity, horsepower, temperature, and pressure.

This is only one of the means by which WATEROUS assures its users of dependable performance. Behind this final test lies a 66 year story of painstaking research, improvement in design, and precision workmanship. Together, these have produced a line of fire pumps that is outstanding for ease of operation, simplicity and accessibility of parts, and utmost dependability.

If you are in the market for new pumping equipment, you will find "Preferred Fire Pump Specifications" a handy and valuable guide. For your free copy, write WATEROUS COMPANY, 80 Fillmore Avenue East, Saint Paul 1, Minnesota.



Model CD
1000 GPM

Waterous
DEPENDABLE PUMPS
SINCE 1886

Anniversary SALE!

On Firewater's Fifth Anniversary Celebration YOU Get the Presents!

GIFT No. 1:

On every order of Firewater (6 gallons or more) you get FREE a box of two dozen Firewater "5" Tubes!

GIFT No. 2:

On all orders up to midnight October 10th freight will be allowed — regardless of size of order!

NOW is your chance to stock up on FIREWATER, the outstanding chemical penetrant, at substantial savings . . . *and* . . . get a supply of the new Firewater tubes, the most convenient way of increasing the efficiency of any five-gallon capacity fire-fighting equipment. Offer good only until October 10!

ORDER TODAY — BE SURE TO INCLUDE COUPON FROM THIS ADVERTISEMENT!

Please send me:

..... cases of 6 1 gallon cans, @ $3.50 per gal.
..... 10 gal. drums @ $3.25 per gal.
..... 15 gal. drums @ $3.00 per gal.
..... 30 gal. drums @ $2.70 per gal.
..... 50 gal. drums @ $2.40 per gal.

Name .....
Address .....
City .....

THE

FIREWATER

COMPANY

P. O. Box 1317, Los Altos, California

Fires in the News

Livonia, Michigan, August 12. (*United Press Photo.*) As this issue goes to press the largest industrial fire loss since Texas City has occurred in this General Motors transmission plant. A welder's torch ignited oil and fire involved a conveyor belt in an unsprinklered area. The undivided 1,494,000 sq. ft. area was only 15 percent sprinklered and became completely involved; 3 employees died, and loss was estimated at $50,000,000, according to a report received from Chief Calvin Roberts of the Livonia Fire Department. Further details will appear in forthcoming NFPA publications.

(*At left*) **Newark, New Jersey, July 5.** (*Photo by Milton B. Neuss.*) The interior of this church was fully involved before the fire of suspicious origin was discovered. A telephone alarm brought 20 fire companies, including 14 engines, 5 ladder companies, and a rescue squad. The 66-year-old building had wooden interior construction, a wood roof with asphalt shingles, and an 80-ft. brick steeple topped with a wooden spire. Heavy wooden doors served to keep the fire from spreading to an adjacent rectory and school until hose lines could be operated to protect exposures. Loss was estimated at $250,000.

(*At right*) **Darien, Connecticut, August 3.** (*United Press Photo.*) A father and two sons died in this 2-family dwelling which was completely involved by fire believed to have originated in living room furniture. Occupant downstairs awoke to find heavy smoke issuing from upstairs rooms and attempted to fight the fire before notifying the fire department. Members of the Norton Heights and Darien Fire Departments responded to telephone alarms just as fire mushroomed through entire wood frame structure.

(*At left*) **Grand Rapids, Michigan, July 27.** A truck carrying gravel collided with a tank truck with a 4-wheel trailer which carried about 8,000 gallons of gasoline. Grand Rapids fire fighters responded with a 1250 gpm pumper and a foam unit, while the Kent County Airport sent a 3-ton Cardox unit. Foam, CO_2, fog and straight streams controlled the fire in 30 minutes, but the driver of the tank truck died from burns.

ILLUSTRATIONS SHOWN ⅝ ACTUAL SIZE

Blackinton's popular Cap, Collar, and Lapel Insignia available in several finishes—all with colorful hard enamel centers. Ask your supplier to show you the complete line of BLACKINTON BADGES the next time he calls. Be sure to specify BLACKINTON BADGES.

IF YOU COULD LOOK OVER THE SHOULDER OF HUNDREDS OF FIRE CHIEFS...

—you would see five good reasons why more and more departments are switching to—

BLACKINTON BADGES

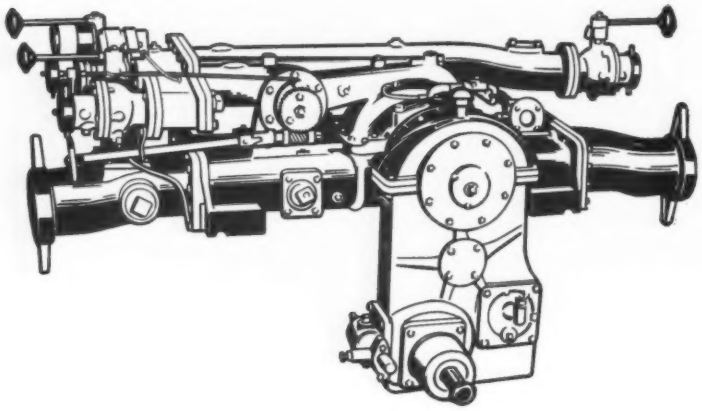
1. ***Expert Die Work***
2. ***Long Lasting Mirror Finish***
3. ***Precise Lettering***
4. ***Smooth, Hard Enamel***
5. ***Custom Design Service***

All backed by 101 years experience in the uniform insignia business.

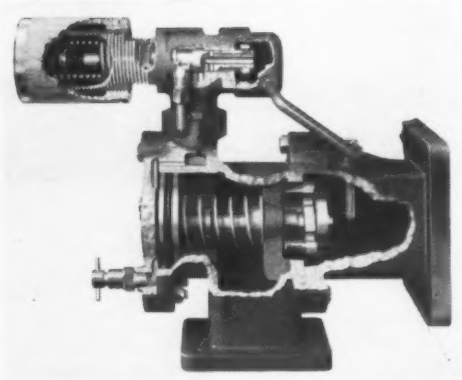
BLACKINTON
V. H. BLACKINTON & CO., INC., ATTLEBORO FALLS, MASS.

Specify HALE *Because HALE Fire Pumps are known for: . . .*

- DEPENDABILITY AND HIGH EFFICIENCY
- FLEXIBLE PERFORMANCE PROVIDING VOLUME AND PRESSURE WHEN NEEDED
- CONSTANT RESEARCH RESULTING IN CONSTANT IMPROVEMENT
- SOLD ONLY THROUGH MANUFACTURERS OF QUALITY APPARATUS



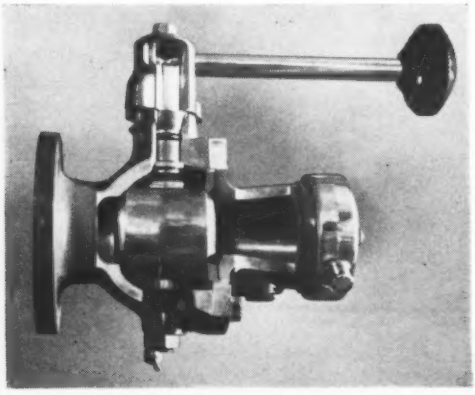
HALE Fire Pumps are built in all standard capacities. They range from the Centrifugal ZMHD 2-stage, Underwriters' rating 1500 U.S.G.P.M. at 150 lbs., down to Type GS Single Stage Centrifugal, Underwriters' ratings 500 and 600 U.S.G.P.M. at 150 lbs.; also rotary Booster Pumps Type HHB, H and 2HB 100 to 200 U.S.G.P.M. at 100 to 200 lbs. pressure.

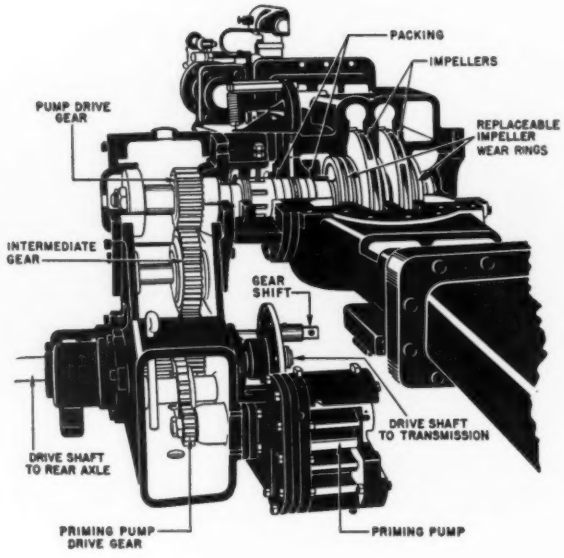


At top — Popular HALE Centrifugal Type ZSF, Underwriters' rating 500 U.S. GPM at 150 lbs. Has Push Button Priming System. The smaller pictures, directly above and below, show two popular and proved accessories important to the efficient operation of Fire Pumps.

Above — Cut-away view of HALE Ideal Relief Valve.

Below — Cut-away view of HALE Type BL Discharge Valve — also available as Suction Valve with 2½" N.S. Female Threads with pin lug Swivel and Plug.





Write for New Circulars and New Bulletins Just Printed, of Interest to All Fire Fighters

HALE
FIRE PUMP COMPANY
CONSHOHOCKEN, PA.

"Wet Water" Stops Fire in Stored Rubber

IN THE August issue of FIREMEN mention was made of a Philadelphia, Pennsylvania, fire which occurred on June 22 in a warehouse used for the storage of rubber and other defense materials. The fire was one of a series of multiple-alarm incidents which occurred in that city within 30 hours. Subsequent reports provided further interesting data which shows that a wetting agent provided the solution to extinguishing the difficult blaze.

The building involved was a sprinklered, 4-story brick, wood-joisted structure heavily crammed with about 4000 tons, of government-owned baled crude rubber in ribbed sheets and about 2000 tons of tannin in fibre sacks. Fire apparently started from a broken electrical connection when the building collapsed from excessive floor loading. The collapse broke sprinkler risers and flames had involved the debris and two exposures when first apparatus arrived. Fire fighting was complicated by two other 2-alarm fires in the area at the same time. Altogether 54 engine and truck companies were in action for the warehouse fire.

The stored sheet rubber burned intensely, emitting intense smoke and liquid residuals which covered streets with a slippery surface. About 100 firemen were injured, many from slipping on the pavement.

Effective fire fighting was done from elevated railroad tracks and a partial outside open sprinkler curtain on an exposure helped to limit fire spread. Foam, straight streams and fog were used through heavy stream appliances, but the collapsed debris prevented adequate blanketing with foam and did not allow fog to absorb sufficient heat.

After 48 hours of difficult battle Deputy Fire Commissioner and Chief of Department George E. Hink decided to apply "wet water." A truck equipped with 100-gallon mixing tanks for foam and wetting agents was put into operation. A 1 percent mixture of wetting agent was applied through two 2½-in. lines and a booster line. The fire was extinguished within less than two hours after application began, with an application of about 70,000 gallons of the wet water.

X MARKS THE SPOT IN CLEVELAND

CIRCUL-AIR SAVES CLEVELAND $350,000.00

Yes . . . Cleveland, too, has "X-ed" out hose towers, racks and such out-moded devices in favor of Circul-Air dryers for hose and fire clothing. According to the Cleveland Plain Dealer, Chief Elmer M. Cain and Safety Director Birkett L. Williams have shown the city savings of $350,000.00 by eliminating all such unnecessary extravagances in 4 new fire stations and given their City engine houses a more attractive, truly functional design.

The City has also just placed an order *for 17 Circul-Air dryers* as a start toward this modernization program. Many of these will replace existing towers or be installed in stations previously without drying facilities.

Cubic contents are thus reduced and down go building costs in Cleveland as they have in over 2000 other cities and towns . . . and . . . in every case . . . they get better hose drying with less work, less man-power, less investment. Circul-Air is the *preferred drying medium for hose and fire clothing in over 70% of the nation's new fire structures.*

Chief Elmer M. Cain

Circul-Air is the patented electrically operated hose dryer, which circulates pre-warmed fresh air through loosely coiled hose at the rate of 5 to 6 air changes per minute. Saves floor space, hard work and lengthens hose life!

No other method is so fast — so economical — so easy to use. If *you* haven't enjoyed the benefits of Circul-Air, we suggest you investigate its merits now — write for catalog and Hose Drying Manual.

LABORATORIES APPROVED

These towns . . . and 2000 others protect their hose with Circul-Air.

Atlanta - Akron - Allentown - Augusta - Boston - Birmingham - Binghamton - Cincinnati - Columbus - Chicago - Dayton - Detroit - Erie - Fort Smith - Flint - Galveston - Houston - Ithaca - Jacksonville - Kalamazoo - Kansas City - Louisville - Lafayette - Memphis - Milwaukee - Miami - Monroe (La., Mich.) - Niagara Falls - New Haven - New Britain - Nashville - Oklahoma City - Omaha - Philadelphia - Providence - Pensacola - Rochester - Seattle - Savannah - Springfield - Shreveport - Toledo - Topeka - Washington - Witchita - Wheeling - Winnepeg - Youngstown.

Accepted - Approved - Recommended

Accepted as the preferred drying medium in most of America's largest fire departments . . . *Approved* by leading testing laboratories, including Underwriters' Laboratories . . . and Canadian Standards Association. Recommended by fire hose manufacturers and Fire Chiefs "all over America."

If you are planning to build, send for our new brochure "FIRE STATION DESIGN"

THE CIRCUL-AIR CORPORATION

575 EAST MILWAUKEE, DETROIT 2, MICHIGAN

New Ways to Fight Fire

Rockwood offers you two big advantages. One is long, practical experience in manufacture and in the field. The other is constant research that results in **new** methods and **new** devices to fight fire. These pages show you a few of the many products developed by Rockwood that have a vital part in fire protection programs throughout this country.

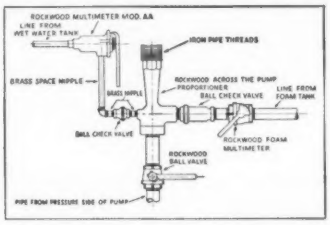
For further details on these products, and many, many others, write for your free copy of the Rockwood Catalog, "Fire Fighting Products." ROCKWOOD SPRINKLER COMPANY, 88 HARLOW STREET, WORCESTER 5, MASS. Distributors in all principal cities.

ROCKWOOD

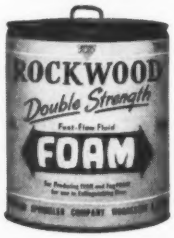
Type FFF FogFOAM Nozzle. Discharges FogFOAM, Solid FOAM stream, and High Velocity WaterFOG.

Type SG-48 WaterFOG Nozzle. Easy to handle. Discharges high or low velocity WaterFOG or straight water stream.

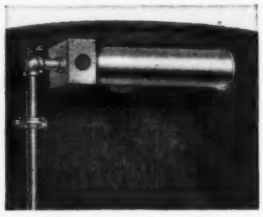
Foam Eductor. Introduces FOAM liquid into hose lines. Used with Type FFF FogFOAM Nozzles.



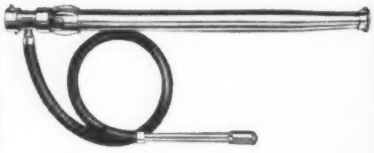
Proportioning Systems. Used when pressure is maintained by pump. Custom-engineered systems also available.



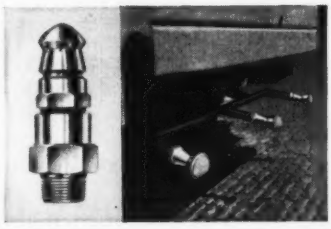
Double Strength Foam Liquid for fire hose line Nozzles and permanently piped FogFOAM and FOAM installations.



Rockwood Foam Maker and Chamber. Used for fighting flammable liquid tank fires.

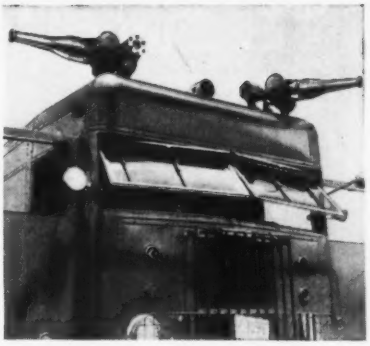


Standard Straight Foam Play Pipe and FOAM pick-up tube. Discharges solid FOAM stream.

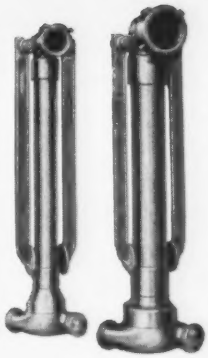


Under Truck and Ground Sweep Nozzles. Used to protect front of fire trucks and parts under trucks.

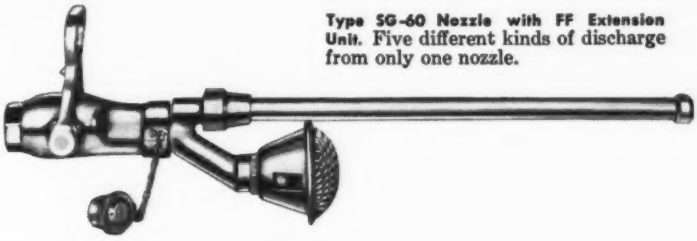
ROCKWOOD
SPRINKLER COMPANY



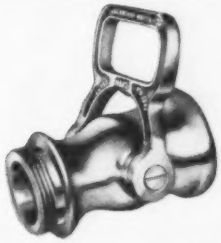
Hydraulically or Manually Controlled Type FFF FogFOAM Turret Nozzle for airport crash fire fighting trucks and special fire fighting trucks for oil refineries, chemical and industrial plants and municipalities.



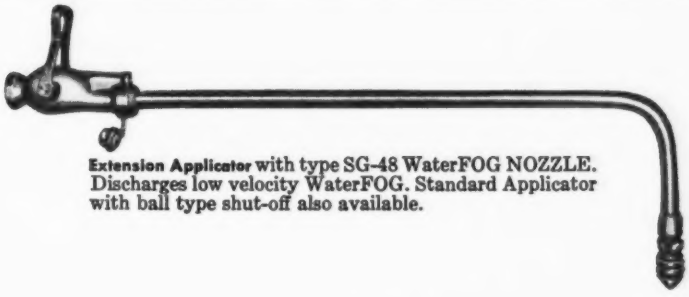
Lightweight Rotating Cellar and Attic Pipe. Fights fires in cellars, attics, under piers, bridges, etc. Also available in a short unit with swivel but without extension barrel.



Type SG-60 Nozzle with FF Extension Unit. Five different kinds of discharge from only one nozzle.



Rockwood Ball Type Shut-Off. Gives operator complete control of water flow from nozzles.

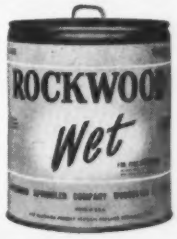


Extension Applicator with type SG-48 WaterFOG NOZZLE. Discharges low velocity WaterFOG. Standard Applicator with ball type shut-off also available.

High Capacity WaterFOG Nozzle. Quickly controls and extinguishes large fires in buildings and flammable liquids.

Type N22 WaterFOG Nozzle. Discharges high velocity WaterFOG. For general use around live electrical equipment.

Rockwood Type N-23 WaterFOG Nozzle with swivel handles. Discharges high velocity WaterFOG with higher discharge, greater range than type N-22 Nozzle.



Rockwood Wet wetting agent. Increases fire extinguishing action of water making a little water go a long way.

Engineers Water . . . to cut fire losses

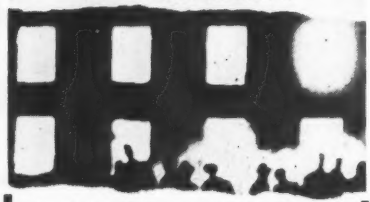
At Last!

An exposé of today's fire losses — who pays for them and why . . .

DISASTER on your DOORSTEP

By PAUL W. KEARNEY

Foreword by Percy Bugbee, National Fire Protection Association



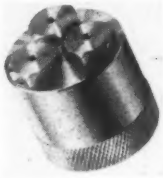
Here is the startling record of today's public fire losses — which cost the American taxpayer $750,000,000 a year. Containing graphic accounts of hundreds of specific incidents, this book "contributes some fine documentation for those who want to do something about it. He gives chapter and verse on inadequate inspection, political corruption in fire departments, faulty building, obsolete equipment and public apathy" — BURTON CRANE, *N. Y. Times.*

$3.00 at your bookstore or from

HARPER & BROTHERS

49 E. 33rd St. New York 16, N. Y.

What's New in Fire Equipment?



New Heads for Fog Nozzles

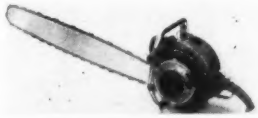
The Fogg-It Sales Company, P.O. Box 1985, Modesto, California, has added two new heads to its line of small capacity fog nozzles. One of these is the "¾-in. Fogg-It 5" nozzle, giving approximately 5 gpm fog discharge when attached to a garden hose having reasonable capacity and pressure. The other is a 1-in. nozzle discharging approximately 10 gpm at 100 pounds and having booster hose thread. Also available is a 4-ft. applicator with shut-off valve which increases the usefulness of the small capacity fog by permitting the operator to bring the nozzle closer to a fire with less discomfort. The nozzles and applicator are available with chrome plating.

FM Transmitter-Receiver

Bendix Radio Communications Division, Baltimore 4, Maryland, has announced a new FM transmitter-receiver complete with controls, power supply, antenna and microphone mounted in a single housing. Weighing approximately 50 pounds and operating in the 152–174 megacycle band, the "Multi-Master" can be used as a fixed station or mobile unit and adapted to narrow band operation. The new unit is available in models which operate from the following power sources: 6, 12, or 64-volt D.C., or 117-volt A.C.

Portable Attachment Saw

A portable power saw and file attachment called the "Key-Hak" is available from Producers and Distributors, Inc., 714 S. 6th Street, Allentown, Pennsylvania. It is a maintenance and production tool designed particularly for installation work but is useful also in a variety of special cutting operations. According to the manufacturer the unit can cut directly into 20 gauge or lighter sheet metal as well as wood of any thickness, without the aid of a starting hole. It can also operate on corrugated metals. Special saw blades are available for cutting stainless steel, monel, chromoloy, chrome vanadium, bronze and many other types of metals. Scroll cuts as well as straight cuts can be made in a variety of building materials. A folder giving more specific information on the selection of blades and other details may be obtained from the manufacturer at the above address.



Gasoline Chain Saw

A 30-pound, 5.5 horsepower gasoline chain saw, Model 5–30, has been announced by Homelite Corporation, Port Chester, New York. In addition to "all-angle" carburetion for cutting in any position, the new saw features an automatic clutch, positive chain lubrication and quick starting, according to the manufacturer. A wide range of blade sizes from 18 to 44 inches will be available for the new model. Further information may be obtained by writing to the manufacturer at the above address.

Audio Amplifier for Two-Way Radio

The General Electric Company of Syracuse, New York, has announced a 10-watt audio amplifier and weatherproof loudspeaker for use with mobile radio com-

for RUGGED DUTY!

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The overwhelming preference for Midwestern Protective Clothing is the result of outstanding performance when the going is tough and the chips are down. The superior quality, design, fabric texture and many exclusive features found in Mackinaw Coats and other Midwestern garments help increase your department's efficiency and provide extra protection for your men at the scene of the blaze.

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You will find the type of fabric exactly suited to your needs in our wide selection of rubber materials. You can absolutely depend on the softness and flexibility of these high-grade materials to meet your most exacting requirements for lasting comfort, rugged service and greater efficiency on the job.

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Manufacturers of the Famous **MACKINAW Coats**

munications equipment. The new unit can serve as a public address system, such as for supervisory control from fire vehicles on the fire grounds, or for hearing incoming radio messages at a distance from the vehicle. Two types are available; the EA-3-A for six-volt operation, and the EA-3-B for 12-volt operation. The horn speaker (shown above) directs the 10-watt audio signal over an approximate 70 degree angle. The amplifier is "shoebox" size and weighs 24 pounds, while the control head, with volume control and 3-way switch, is dash mounted. Further information is available from Dept. N-15, Inquiry Section, G-E Electronics Division, Electronics Park, Syracuse, New York.

Reel for Power Equipment

A bracket-mounted reel for cords for electrical power equipment is being produced by Industrial Electrical Works, Room B 327, 1503 Chicago Street, Omaha 2, Nebraska. Called the "Port-O-Reel," the unit has an adjustable brake and lock and a free turning knob to facilitate winding. Weight is approximately 5 pounds, less cord and plug. Further information and prices are available from the manufacturer at the above address.

Compact Two-Way Radio Unit

Motorola, Incorporated, 4545 W. Augusta Boulevard, Chicago, Illinois, has announced new 30 and 60 watt models as additions to their line of 25–54 mc. FM two-way radio equipment. The models feature 6–12 volt DC operation, dual interruptor power supply and reduced primary power drain. The sets may be used interchangeably in 6 and 12 volt vehicles without revising internal wiring. The new equipment, designed for automobile trunk installation, utilizes separate transmitter, receiver and power supply chassis assembled into a compact drawer-type housing. All operational accessories are included as part of each model. Write to the manufacturer at the above address for further information.

Your BEST PROTECTION FOR FLAMMABLE LIQUID GAS & ELECTRICAL FIRES

HAND PORTABLE • WHEELED
PORTABLE • STATIONARY
UNITS • PIPED SYSTEMS •
TRUCK MOUNTS • TRAILERS
SELF-PROPELLED UNITS

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FIRE EXTINGUISHING EQUIPMENT

MODEL 30-B

Ansul users get more from their investment in fire protection. In addition to superior fire extinguishing equipment, Ansul customers get valuable services. These services are available exclusively to users of Ansul Equipment.

Send for File No. 799. You will receive a variety of helpful printed matter. Included is our latest catalog and a description of the free services available to Ansul customers.

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MANUFACTURERS OF FIRE EXTINGUISHING EQUIPMENT, INDUSTRIAL AND FINE ORGANIC CHEMICALS, LIQUEFIED GASES AND REFRIGERATION PRODUCTS

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SACHEM LEADER LINE
SHUT-OFF NOZZLE

Furnished in 1½" size for hose connections. Tip end of nozzle with booster thread for connecting booster hose for clean-up. Fire Departments far and wide have come to depend upon this rugged nozzle. It is truly a leader.

Be sure to investigate Powhatan's dependable line of fire fighting equipment.

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POWHATAN BRASS and IRON WORKS
RANSON, WEST VIRGINIA
Phones 93 & 94 Charles Town, West Virginia
Established 1892

Fire Chiefs

Globe Suits are comfortable, warm, and dry . . . ready for action in any weather. Quick-hitch Globe Suits have been endorsed by Fire Chiefs everywhere.

See them at your dealer's or write for our descriptive folder.

"The Suit that Suits!" . . . *since* 1901

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DURABLE FIREMEN'S

SUITS

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New Edition Available

THE Circul-Air Corporation, 575 East Milwaukee Avenue, Detroit 2, Michigan, has announced the fourth edition of "Fire Station Design." The 60-page brochure contains about 70 plans and perspective drawings of new fire stations in the United States and Canada. Copies of the brochure may be obtained free of charge by writing to the manufacturer at the above address.

Dates to Remember

Kansas: The 24th Annual Kansas State Fire School will be held at the University of Kansas, Hutchinson, October 20–23. Write to Gerald Pearson, Director, Extension Classes, 111 Fraser Hall, University of Kansas, Lawrence, Kansas.

Maryland: The 20th Annual Short Course for Firemen will be held at the University of Maryland, College Park, September 8–11. Write to Robert C. Byrus, Director, Fire Service Extension, University of Maryland, Box 85, College Park, Maryland.

New York: The New York State 5th Annual Fire Instructors Conference will be held in Buffalo, October 5–9, in cooperation with the Buffalo Fire Department.

Ohio: The Ohio State Fire School will be held at the University of Ohio in Columbus, September 8–11. Write to Harvey Walker, Director, Ohio State Fire School, Ohio State University, Columbus 10, Ohio.

Omaha, Nebraska: The 71st Annual Meeting of the Nebraska State Volunteer Firemen's Association, October 19–21. Hotel Paxton, headquarters. Write to Russell D. Salak, Sec.-Treas., Box 312, Schuyler, Nebraska, for information.

Virginia: The Virginia State Fire School will be held September 14–18 at No. 9 Fire Station, 115 Thole Street, Norfolk. Write to Fire Marshal Clay A. Easterly, Director, Box 1112, Martinsville, Virginia.

Modernize Your Fire Department with a

BLITZ BUGGY

2-Stage Centrifugal Pump
100 gallons at 600 lbs. pressure
300 GPM at 100 lbs. pressure

Carries its own water supply — Built on chassis of your choice — Fog Foam & Wetting Proportioner Optional.

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THE BLITZ BUGGY COMPANY
(Successors to Hi-Pressure Fog Equipment Co.)
OLD FORGE, NEW YORK

FOR SALE

American-LaFrance FORD 500-gallon rotary gear pumper complete, excellent condition. Contact — Chief Harold Jamieson, Wellsburg, N. Y. Phone — Elmira, N. Y. 7811.

Announcing the

NEW CARDOX

"Foam-Maker" PUMP

3,000 GPM!

(Nominal at 1200 RPM with CARDOX TURRET NOZZLE)

ANOTHER CARDOX FIRST—

A pump exclusively designed for foam generation. Makes foam in the pump — not in the nozzle!

GIVES YOU THE QUANTITY AND QUALITY

. . . of foam needed to meet today's ADVANCE THINKING in foam fire protection!

NOT ONLY MORE FOAM, BUT BETTER FOAM!

Produces homogeneous, evenly dispersed "sno-foam" for much more effective fire fighting performance, with maximum range in all patterns.

GET THE FULL FACTS

ON THE TRULY REVOLUTIONARY CARDOX "Foam-Maker" SYSTEMS.

WRITE TODAY FOR FURTHER INFORMATION!

The CARDOX "Foam-Maker" Pump in action with its companion equipment, the new CARDOX Turret Nozzle, designed especially for use with the "Foam-Maker" Pump.

- **3000 GPM—12 to 1 expansion.**
- **30 to 40 feet effective range, dispersed (shown) through 140 to 160 feet effective range straight stream.**
- **25 to 30 minute drain-off.**

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The Gas Mask That Checks . . .

"HUFF AND PUFF"

You can wear the Acme Full-Vision Gas Mask two or three times as long as others without worrying about "huff and puff." An exclusive Acme feature, the Dead Air Check Valve, actually limits the amount of carbon dioxide the wearer rebreathes and thus helps to check breathing difficulties at their source.
This is another Acme innovation that proves that protection can be comfortable.

Write for the complete story on Acme Gas Masks for all fire fighting hazards

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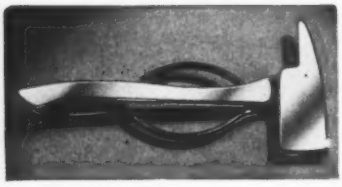

"The Axe of Recognition"

The most popular tie clip among fire fighters everywhere.

Chrome plated, shaped in the pattern of a fire axe.

Price $1.50 each

In lots of 12 or more, $1.25 each

Made by a Fireman for Firemen

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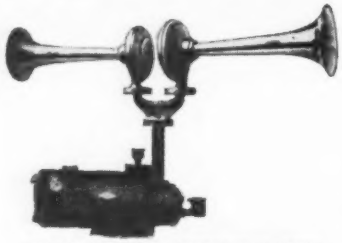

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Clark Cooper Electro-Phonic Air Signals are unsurpassed for coding instantaneous short or long blasts. They are used extensively for FIRE, AIR RAID, RESCUE SQUAD, AMBULANCE, etc. Hundreds used as auxiliary signals tied in with regular systems. Let us know your particular needs. *Agencies Available*

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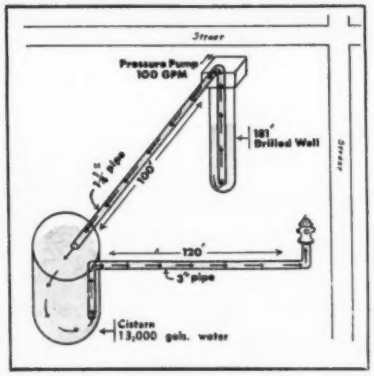

Fire Department Ingenuity

(From the July, 1953, Iowa State College Bulletin "Fire Service Information.")

THE Moravia Fire Department recently installed the above hydrant attached to a 13,000-gallon cistern in the community. This makes use of an otherwise inaccessible supply of water. This idea is well worthwhile, as we know of many departments in the state that have water supplies of this type but are unable to gain access to the wells and cisterns.

Moravia is planning to set one or two more hydrants attached to cisterns on its main street. The main from the cistern to hydrant is buried 4 feet under ground. Keep in mind that in a set-up of this type you should be able to draft water horizontally at least 200 feet so long as the depth from hydrant outlet and water level in the cistern does not exceed the maximum lift on your pump.

Congratulations to the Moravia Fire Department for a very worthwhile idea.

Fire in Beach Concessions

Revere, Mass. August 3. Fire departments from Chelsea, Everett, Malden, Lynn and Boston responded on mutual aid to assist the Revere Fire Department when fire occurred in these beach concession buildings. Delayed discovery, lack of sprinklers and wood construction led to an estimated loss of $80,000. (United Press Photo.)

DARLEY CHAMPION 500 GALLON PUMPER

AT YOUR SERVICE: Sales and Service Representatives — East, Midwest, North, South

W. S. Darley & Co.

Write Today for 44-PAGE Booklet of the Complete Line of CHAMPION *Fire Apparatus and Fire Pumps*

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EMERGENCIES CAN'T WAIT!

PENNIES FOR A WINDSHIELD INSIGNIA MAY SAVE DOLLARS IN DISASTER LOSSES

MEMBER VOLUNTEER FIRE DEPT. YOUR HOSE COMPANY NAME AND ADDRESS HERE

Quickly Recognizable Ever-Present, Positive Identification

IMPRINTED WITH YOUR OWN COMPANY NAME

Attractively printed in Gold, Red, Black and White

Hundreds of fire companies from Coast to Coast have equipped their members' cars with quick windshield identification. In times of emergency they are an utmost need . . . when not on duty, they offer members a source of company pride and community esteem.

Insignias are applied by water to stay put for years. Colors remain bright because of all-lacquered finish. Do not hinder vision — only 3½ x 4¼ inches on outside dimensions. Can be placed on any window or opaque surface.

ORDER NOW at these LOW C.O.D. PRICES

15–49	50c each	100–149	30c each
50–99	40c each	150 or more	25c each

Also C.D. insignia, decorative fire truck scrollwork and many other decals available. Send coupon below!

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Place "X" In One or More Boxes

☐ Send me sample decal imprinted "Chief: Fire Department." 10c enclosed for handling and postage.

☐ Order with quantities and imprint information is attached.

☐ Send me new brochure with further information.

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CITY COUNTY STATE

Forest Service Films

OBTAINABLE from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C., is a list of films prepared by the U. S. Forest Service and available for educational purposes. The list includes a number of films which might be of interest to fire departments. Copies of films in 16 mm. size are available on free loan from regional offices of the U. S. Forest Service, while 35 mm. films may be obtained from the Motion Picture Service, U. S. Department of Agriculture, Washington 25, D. C.

In applying for the films fire departments should state whether the projector to be used is for sound or for silent film, the size of the film desired, the date or dates the films will be used, and the types of groups to whom the film will be shown.

For General Interest

"Dead Out," Sound Film: 20 Minutes. For grade 5 to adults.

"Don't Let It Happen," Sound Film: 10 Minutes. For grade 6 to adults.

"The Frying Pan and the Fire," Sound Film: 20 Minutes. For grade 4 to adults.

"It's No Picnic," Sound Film: 26 Minutes. For grade 6 to adults.

"A Most Dangerous Combination," Sound Film: 2 Minutes. For grade 6 to adults.

"Pine Ways to Profit," Sound Film: 20 Minutes. For grade 6 to adults.

"Smokey Bear," Forest Fire Prevention Trailers, Sound Films: 8½ Minutes. For grade 6 to adults.

"Smokey Bear," 3 One-Minute Musical Trailers, Sound Film. For grade 5 to adults.

"Smokey the Bear," Sound Film: 4½ Minutes. For grade 1 to adults.

"Then It Happened," Sound Film: 10 Minutes. For grade 6 to adults.

"Do It With E's," Sound Film: 25 Minutes. For grade 9 to adults.

For Fire Fighting Training

"Fighting Large Fires in Brush and Grass," Sound Film: 24 minutes. For grade 9 to adults.

"Fire in the Forest," Sound Film: 22 Minutes. For grade 9 to adults.

"Forest Fire Fighting in the South," Sound Film: 39 Minutes. For grade 9 to adults.

"Forest Smokechaser," Sound Film: 27 minutes. For grade 9 to adults.

"Grass and Brush Fire Fighting," Sound Film: 26 Minutes. For grade 9 to adults.

"Only A Bunch of Tools," Sound Film: 26 Minutes. For grade 9 to adults.

"Smokejumpers", Sound Film: 10 minutes. For grade 5 to adults.

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NFPA Inspection Manual

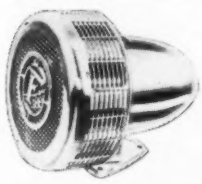
336 pp. $3.00 per copy

National Fire Protection Association
60 Batterymarch Street, Boston 10, Mass.

The *PEAK* of *Protection*

FEDERAL *salutes* **all FIRE CHIEFS**
and extends a warm invitation to visit
BOOTH 59
and to see the latest developments in Warning Signals.

The city of Sylacauga in Alabama has purchased from the "L. P." Harless Co. of Birmingham this fast, efficient 750 G.P.M. class "A" triple combination pumper. Supplier states "this type fire engine has the fastest pumping operation in America today." Of course, this peak performance is protected by the "Peak of Protection", Federal's famous Beacon Ray light and coaster siren.



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This type of fire engine is the "peak of fire protection" for American cities today.

The "peak of protection" from damage or delay to your apparatus is the famous Beacon Ray light on the roof and the dependable Federal coaster siren on the fender.

Remember, the 360° protection of the Beacon Ray, visible "all-around" and the extra loud persistent warning of the Federal coaster siren are vital points in the protection of your entire vehicle investment; Federal quality and dependability assure you that your apparatus has the "Peak of Protection."

Write today for literature on the complete line of warning signals by Federal.

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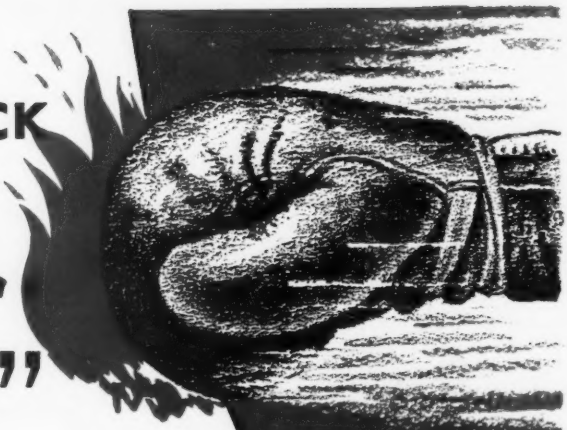
THE LITTLE FIRE TRUCK

with the

BIG PUNCH..

"LITTLE MO"



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MUNICIPAL
RURAL
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AIRPORT FIRE PROTECTION

- **A quality product offering the best in fire fighting equipment at low cost.**
- **Can be used on class A, B, and C fires.**

A complete, self-contained high and low pressure fire fighter equipped to supply solid water stream — WaterFOG — FOGFOAM — solid FOAM stream or "Wet" water. It can be operated by one man from within the cab. Has two or four wheel drive. Write to address below for more complete information.

Designed by W. Lewis "ARMY" Armstrong
the originator of the BLITZ BUGGY

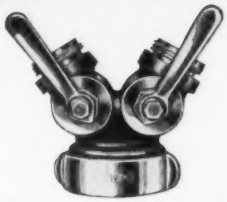
ARMY'S FIRE SERVICE

BOX 186 OLD FORGE, N. Y.

Equipment includes—

Four stage centrifugal pump with electric primer, 200 gallon booster tank, Rockwood Dual Suction Proportioning System for FOAM and "Wet", Rockwood Remote Manual Control Turret for FOAM or water mounted on cab and controlled from within, two Rockwood Ground Sweep Nozzles for FOAM or WaterFOG, Rockwood Remote Control Ball Valves, two Hannay reels with 200' of high pressure hose and the new Rockwood High Pressure Handline Nozzle for FOAM and Water on each reel, one 1-1½" discharge port supplying two 1-1½" lines, 2½" outboard gated suction pressure gauges and controls for Rockwood Remote Operated Ball Valves located in cab, siren with flasher, spotlights, pick-up lights, axe, bar, 20' ladder, hose body, "quick-fill" fillers for water, FOAM and "Wet".

Products for the Entire FIRE FIGHTING FIELD



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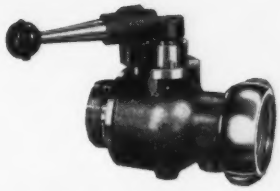
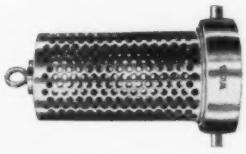
Famous "Control-Flo" valve action, roller bearing swivel construction. Designed as short as possible (9") for apparatus body clearance. Available in 4", 4½", 5", or 6" diameter sizes.



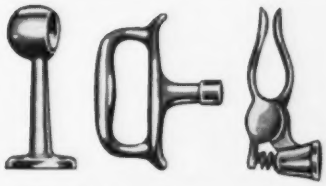
CONTROL-FLO APPARATUS VALVE

Operates easily at any pressure, in either direction. Controls hose pressures without changing pump speed. Throttle type handle locks "Control-Flo" valve in any position.



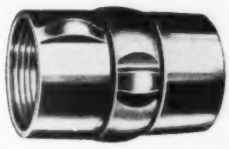
TRUMPET TUBE STRAINER

A suction strainer made of heavy cast brass throughout. The ample hole arrangements permits free suction to pump for maximum performance. Made to individual thread requirements in all sizes from 1½" through 6".



FIRE TRUCK FITTINGS

Wooster Brass can furnish highest quality truck fittings such as brackets, pole and bar holders, seat handles, hose clamp handles, axe holders, etc. Polished brass or chrome finishes available.



SKI-LUG FIRE HOSE COUPLINGS

Scientifically shaped to eliminate hooking when drawing hose lines over obstructions. Pin-lug couplings also available for fire hose, mill hose and linen hose. Full rounded lug contour reduces pulling friction.

TRUMPET SUCTION HOSE COUPLINGS

Available in 3 combination handle-lug types. The high quality workmanship and finish of Wooster Suction Hose Couplings will make you proud to put them on any equipment. Made with a free-action, roller bearing swiveling feature.

TRUMPET QUADWAY NOZZLES

The Quadway's fire fighting versatility has made it the standard nozzle of thousands of departments and industrial fire-fighting systems. Provides a finger tip choice of a solid straight stream, a dense fog-mist, or a combination of both to any varying degree. Full choice of sizes.

GEYSER TURRET NOZZLES

Available in 2, 3, or 4-inlet types. Can be turned in a complete circle horizontally. Full adjustable vertical range. Operates easily at lower elevation ranges.

GEYSER DELUGE DECK PIPES

Mount on apparatus or wherever permanent fire protection is needed, such as lumber yards and oil fields. Has full 360° horizontal sweep and a vertical range of 10° below and 60° above horizontal.

The precision products shown here are just a few of the many items of cast brass fire equipment manufactured by Wooster Brass. Write for your catalog now . . . and consult your Wooster Brass representative for all your equipment requirements.

WOOSTER BRASS

WOOSTER, OHIO

A DIVISION OF THE FYR-FYTER COMPANY

NEW McCULLOCH PORTABLE PUMP

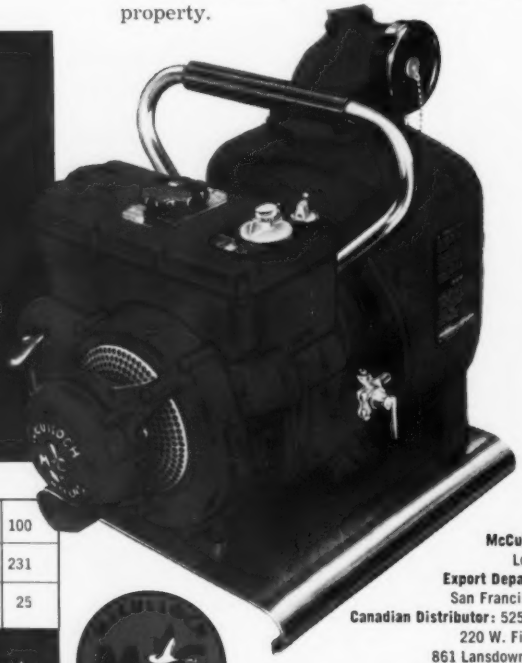
Protects Lumber Mill!

Lumber mill burning! Mill pond is nearby. Emergency fire equipment – a McCulloch 7 FP pump – goes to work with three 50 foot lengths of 1½ inch hose. Two sections of line with ⅜ inch nozzles pour water on the blaze, at 67 psi. The other line, with 5/16 inch nozzle, wets down and protects adjacent property.

Model 7 FP McCulloch

CENTRIFUGAL FIRE PUMP

Weighs only 57 lb. complete!
Delivers 250 gpm!
Develops pressures over 100 psi!
Primes at 25 ft. suction lift!
Delivers fog, stream, or foam!
(all measurements in U. S. gallons)



PERFORMANCE CHART (with 10-foot suction lift)

Discharge Pressure PSI	10	20	30	40	50	60	70	80	90	100
Discharge Hd., Ft. Water	23	46	69	92	115	138	161	184	207	231
U. S. Gal. Per Minute	250	227	197	164	130	101	78	54	38	25

Send for Complete Information Today!
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Los Angeles 45, California
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McCULLOCH

5-3205

COMMERCIAL Seagrave

DEPENDABLE FIRE PROTECTION AT LOW COST

Seagrave has solved the problem for many communities, volunteer fire companies, and industries who want efficient fire service but do not need the more expensive metropolitan pumpers.

Economically priced pumping engines are produced by Seagrave by using a commercial truck chassis and building on it the Seagrave body complete with Seagrave pump, Seagrave ladders, Seagrave controls and all other standard Seagrave equipment. This pumper contains the same fine engineering, quality materials and mechanical work that go into the higher priced jobs. . . . Therefore, there is no need for you to accept a substitute for Seagrave when you can buy this famous pumping engine at your budget price.

The Seagrave Commercial may be equipped with the Seagrave High Pressure (fog) Pump, pictured above. Pressures up to 1000 lbs. . . . You also have your choice of the Seagrave Two Stage Parallel Series Centrifugal or the Seagrave Single Stage Pump. All manufactured by Seagrave from fine grained bronze.

THE SEAGRAVE CORPORATION
Columbus, Ohio
Bickle-Seagrave, Ltd.
Woodstock, Ont.

THE GREATEST NAME IN FIRE APPARATUS

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There's Still Time to Get Materials For

Fire Prevention Week — October 4-10, 1953

Orders received after September 23 cannot be accepted

To catch the attention of property owners in your community during Fire Prevention Week, October 4-10, you should make the best possible use of posters, display cards, comic books, inspection blanks and other materials which have been prepared especially to present a forceful fire prevention message.

Again this year the National Fire Protection Association has a large amount of such materials ready for early distribution. Be sure that your municipality and your fire department gets the necessary quantity in time for Fire Prevention Week.

Below is a complete list of materials that are available, together with prices and quantity discounts.

Merely fill in the quantity of each item that you desire and mail to the NFPA at the address shown on the order blank. Be sure that your order arrives at the NFPA Executive Office before September 23.

CLIP ALONG THIS LINE AND MAIL TO ADDRESS BELOW

FP-9-53

ORDER BLANK

Order early to forestall transportation delays. Orders received after September 23 cannot be accepted.

QUANTITY

_____ 1. Poster — $2.50 per 100, $17.50 per 1000.

_____ 2. Facts About Fire — $2.00 per 100, $15.00 per 1000.

_____ 3. Display Card — 25c each, discount for quantities.

_____ 4. Coloring Book — 5c each, $5.00 per 100, $45.00 per 1000.

5. Comic Books — 5c each, $45.00 per 1000.

_____ (a) Smokey Stover.

_____ (b) Fire and Blast.

_____ 6. Sticker — 15c for sheet of 50, discount for quantities.

_____ 7. Flyer — $1.00 per 100, $7.00 per 1000.

8. Inspection Blanks — 8½ x 11.

_____ (a) Industrial — $1.00 per 100, $7.50 per 1000.

_____ (b) Home Inspection Blank — $1.00 per 100, $7.50 per 1000.

QUANTITY

_____ (c) Mercantile — $1.00 per 100, $7.50 per 1000.

_____ 9. Blotter — $2.00 per 100, $17.50 per 1000.

_____ 10. Envelope Stuffer — $1.00 per 100.

_____ 11. (a) Folder — $1.50 per 100, $12.50 per 1000.

_____ (b) Folder — $2.00 per 100, $17.50 per 1000.

_____ (c) Folder — $2.00 per 100, $17.50 per 1000.

_____ (d) Folder — $2.00 per 100, $17.50 per 1000.

_____ (e) Folder — $2.00 per 100, $17.50 per 1000.

NOT ILLUSTRATED BUT AVAILABLE

_____ Fire Prevention Week Handbook — complete plans for a successful campaign — 15c each.

_____ Preventing Home Fires — 25c each, discount for quantities

Mail to: NATIONAL FIRE PROTECTION ASSOCIATION

60 Batterymarch Street - Boston 10, Massachusetts

PLEASE PRINT

NAME _____

ADDRESS _____

CITY AND STATE _____

Prices subject to 2% discount if payment accompanies order. All prices F.O.B. Boston. **ORDERS SHIPPED EXPRESS COLLECT.** NFPA members may receive single copy of all items gratis. Others may receive sample of all items except "Handbook" and Display Card (item 3) free upon request. Items No. 1, 2, 4, 10 and 11 (a) (b) (c) (d) (e) have space for imprints of names of campaign sponsors which may be added locally by purchasers.